The Lumleian Lectures

ON

THE SEQUELS OF DISEASES.

Delivered before the Royal College of Physicians of London

BY SIR DYCE DUCKWORTH, M.D., LL.D. EDIN.,

FELLOW AND TREASURER OF THE COLLEGE; PHYSICIAN AND LECTURER ON MEDICINE, ST. BARTHOLOMEW'S HOSPITAL; AND HONORARY PHYSICIAN TO H.R.H. THE PRINCE OF WALES.

LECTURE II.[1]

Delivered on March 24th, 1896.

IN my last lecture I discussed at considerable length the varieties of sequels which may occur after enteric fever. We shall not find so much to claim our consideration in respect of many other diseases. I was led to dwell in detail on most of the residual disorders of enteric fever, because it appears to me probable that we have in this instance a typical example of the several consequences that may supervene upon the occurrence of specific and infectious diseases generally, one which may well serve to illustrate for us the intimate nature of, possibly, the majority of bacterio-toxic sequels. The task of tracing the hitherto hidden causes of sequels in a large class of diseases is made easier, by far, when we have to pursue the evolution and manifestations of microbic elements which are known and accurately recognised. We have not this knowledge as yet in respect of several of the infectious fevers, but we are now fully justified in forming opinions speculatively regarding a similar etiology for these, judging by the remarkable analogies that exist between those of which we have this knowledge and those of which, up till now, we have not. That we are still in ignorance of the exact and particular nature of the elements which generate the toxines of variola, varicella, scarlet fever, and some other diseases is somewhat remarkable when the researches of so many competent observers, pursued with untiring industry in all the great schools of medicine, is considered. We can hardly believe that these elements will much longer elude the scrutiny that is now focussed upon them. The subject is of paramount importance, and we may feel happy in the belief that no amount of sentimentalism or fanatical obloquy, either in this country or in the United States of America, will long delay the progress of knowledge in this direction. To those whose humane efforts are still curtailed and chastened in this country I would say, "*durate, et cosmet rebus serrate secundis.*"[2]

I am indebted to my colleague Dr. Kanthack for knowledge of some recently recorded facts respecting the influence of typhoid bacilli. Dmockowski and Janowski have proved that these microbes, when injected into rabbits, are capable of producing suppuration, and the same occurs in dogs previously weakened by loss of blood or whose subcutaneous tissues have been first injured, also if these bacilli be injected under scars. The bacilli are found to wander to an inflamed or artificially predisposed site in from ten to twenty days after inoculation. These observers found typhoid bacilli in suppurative foci occurring after the fever, as in parotitis. They met with none escaping by the urine after the crisis of the fever.[3] In a case of ulcerative endocarditis which occurred in a patient suffering from typhoid fever, Dr. Kanthack found typhoid bacilli in the valvular excrescences. Janowski met with them in a case of fatal suppurative parotitis which followed seven weeks after the fever, when the Peyerian ulcerations were found quite healed. Wasserman of Berlin, as the result of his researches, believes that the complicating lesions of typhoid fever are usually due to mixed infections, as he found both typhoid bacilli, streptococci, and others in these conditions. These are the latest contributions to the subject, and they have the merit attaching to the researches of inquirers whose competence for the difficult task cannot anywhere be disputed.

Scarlet fever in severe cases has many complications and several sequels. Pleurisy is amongst the latter, and may be purulent from the first. Endocarditis is not infrequent, and some cases of valvular heart disease met with in later life are probably attributable to this. I shall presently discuss the intimate nature of this condition. Sero-fibrinous or purulent pericarditis may develop during convalescence, also myocarditis associated either with rheumatic or pyæmic conditions. Lymphadenitis may remain, become chronic, and prove but slowly amenable to treatment. Osler records an instance in which the neck remained enormously enlarged and surrounded by a mass of firm brawny glands for two years after an attack. Multiple neuritis, with progressive paralysis and muscular wasting, may occur. Cerebro-spinal insular sclerosis is alleged to have followed scarlet fever. The possibility of associated diphtheria must be borne in mind in some of the paralytic cases. Mania, idiocy,[4] insanity,[5] and melancholia have been recorded as sequels. Handford quotes Dr. Griffiths, of the Nottingham Fever Hospital, for the facts that in 1500 cases he met with two of chorea, one of disseminated sclerosis, and one of spastic paraplegia (probably functional) lasting only a few weeks. Slight hemiplegia (recoverable) has been noted, in all probability due to embolism or thrombosis. Optic neuritis may occur independently of organic cerebral change. Acute myelitis is noted amongst the sequels and epilepsy with more frequency than after any other acute infectious disorder. Nephritis is rather to be regarded as a phase of the disorder, or at least as a complication, and not a true sequel of scarlet fever. It is a definite form, attacking primarily the glomerular system of the kidney. Although it so commonly supervenes on apparent convalescence about the third or fourth week, and while desquamation is in progress over the body, I think it should be regarded as part of the original disease. It is as specific as the cutaneous exanthem, and its significance may be taken to indicate a late invasion of the kidneys by the microbic elements[6] or their toxines as yet not eliminated from the body, and possibly finding their way out by this emunctory channel. The occurrence of dropsy in some cases without albuminuria lends support to the old idea that the anasarca is probably a specific inflammatory exudation into the integuments and cavities. It is rare for such cases to recover ultimately without some degree of albuminuria.[7] Cirrhosis of the liver may be a sequel of scarlet fever. Barlow and others have noted this, and an interstitial overgrowth has been frequently observed in the livers of patients who have succumbed to the disease.[8] The sequels of otitis media suppurativa, perforation of the tympanic membrane, suppuration in the labyrinth, and necrosis of the petrous bone may be far-reaching and tedious.[9] Facial palsy, thrombosis of the lateral sinus, meningitis, and cerebral abscess may all ensue. Permanent deafness thus results. The tonsils may remain permanently enlarged. Goodhart records two cases of torticollis as a sequel. Suppurative peritonitis, enteritis, chronic diarrhœa, symmetrical gangrene, noma, and perforation of the palate have been noted, though rarely, as sequels. After enumerating such a grievous list of troubles as this it is interesting to know that in recent years this terrible pest has been generally present in a somewhat milder form than formerly, and that, therefore, the gravest sequels are rather less commonly met with than was the case five-and-twenty years ago. The disease has generally been of a severer type in this country than on the continent of Europe, and consequently is regarded with greater apprehension amongst ourselves. The arthritis which occurs in connexion with scarlet fever has been carefully studied only within a recent period. It has commonly been regarded as "rheumatic," or, at all events, as rheumatoid. Henoch proposes for it the term "scarlatinal synovitis." Goodhart believes that some cases are truly rheumatic, and others, such as suppurative arthritis, are pyæmic in nature. There is an apparent analogy between scarlatinal and gonorrhœal rheumatism (so-called), the former being regarded as a pyæmic infection from sores in the fauces. But articular

[1] Lecture I. was delivered on March 19th, and published in THE LANCET of March 28th.

[2] Ærcid I., 207

[3] Ziegler's Beiträge, vol. xvii., p. 222-365.

[4] Nine cases in 2000 (Dr. Fletcher Beach). In most cases there was a family history of neuroses.

[5] Four cases in 1000 (Dr. Clouston).

[6] Some variety of streptococcus pyogenes.

[7] Vide paper by Dyce Duckworth, St. Bartholomew's Hospital Reports, vol. xix., 1883.

[8] Klein.

[9] Mr. Charles Parker has lately expressed the opinion that this sequel is probably due to the rapid development of post-nasal growths (adenomata), and considers it important to examine early for such and to remove them as soon as possible after convalescence.—Post-nasal Growths, 1894, p. 12.

disorder occurs in the course of scarlet fever *sine anginâ* when there is no source for infection from the fauces; and endocarditis may also be present in such cases. As indicated by Archibald Garrod, it is the association with arthritis of a series of other rheumatic phenomena which points to the truly rheumatic nature of the process, at least in some instances. Thus, endocarditis and pericarditis may occur, and chorea may supervene. Subcutaneous nodules may appear, also erythema nodosum and marginatum. With these facts before us, it is, I think, impossible to disregard the conclusion that scarlet fever strongly predisposes to rheumatism, and my belief is that the occurrence of it will be found most frequently, if not solely, in children of an inherited arthritic diathesis—an opinion of M. Peter in which I fully concur. This and other forms of zymotic disease may so test this habit of body as to awaken and reveal a rheumatic tendency hitherto dormant in the patient. I am indebted to Dr. Dickinson for his observation that the onset of true rheumatism following scarlet fever is especially apt to be succeeded by chorea, the latter, as I regard it, being a cerebral (cortical) manifestation of rheumatism. In my opinion, then, we may regard it as nearly certain, (1) that true rheumatic complications and sequels may be met with in scarlet fever and (2) that varities of arthritis, due to septic or pyæmic influence, may also occur. Of the latter, Dr. Ashby describes an early and late form, the latter occurring during desquamation. A purulent arthritis is rare.[10] We shall subsequently find that measles may act, as does scarlet fever in evoking rheumatic manifestations, or in preparing the way for them.

Measles is occasionally followed by chronic catarrh of the bronchi and lungs. Tuberculosis may become generalised, probably starting from a source in the bronchial glands or from patches of broncho-pneumonia. Enlarged tonsils and lympharia may remain long after the illness. Post-nasal glandular growths may occur as a sequel. Some observers mention the occurrence of endocarditis. I have never met with an instance of this. Rheumatic fever, however, sometimes supervenes on measles, and the latter condition appears to predispose to rheumatic manifestations in predisposed subjects. Endocarditis (rheumatic, not morbillous) may be one of these.[11] Cancrum oris and gangrene of the vulva have been noted. Destruction of nasal cartilages and necrosis of the upper or lower jaw may result in feeble children. A case of post-morbillous disseminated myelitis has been described by Dr. Barlow with rapidly spreading paralysis and a fatal issue on the eleventh day. Paraplegic symptoms due to polyneuritis have also been witnessed.[12] Dr. Dawson Williams has described an instance of false disseminated sclerosis of the cord as a sequel. Diarrhœa from intestinal catarrh and dysenteric symptoms due to colitis have been noted. The kidneys very rarely suffer. In 103 cases of acute nephritis collected by Dickinson measles was noted as an antecedent in only three cases. A condition of low health may long remain after an attack of measles, with a general vulnerability of most of the textures of the body. Dr. Fletcher Beach met with 11 cases of idiocy which followed on measles out of 2000 cases, and, *per contra*, Dr. Colman reports 2 cases of mentally backward children who both began to improve after measles. According to Barlow, infectious diseases are found to reinforce pre-existing nerve-lesions, and he gives as an instance the case of a child with infantile paralysis of the lower limbs who contracted measles, and after the paralysis had become general died comatose during the infective period. There has long been observed a relation between pertussis and measles. Dr. Charles West is of the opinion that the occurrence of any one of the eruptive fevers during the epidemic prevalence of another increases the liability to become affected with that which is epidemic, and that thus pertussis may supervene upon either measles or varicella. Dr. Goodhart noted the occurrence of pertussis fourteen times after measles in 305 cases of the latter. The same may be said of membranous laryngitis (diphtheria), which sometimes coexists with, or follows shortly after, an attack of measles. We have here an illustration of what may be termed a succession of diseases, one preparing the way, as it were, for another. The following series of illnesses in a family of three young children indicates fairly well what I mean—albeit the intervals between the several disorders were somewhat protracted. In the middle of June, 1895, all had measles. In November all had whooping-cough. Post-nasal adenomata occurred in one child as a sequel and were removed. In January, 1896, all these children had chickenpox. Occurrences of this kind are by no means uncommon. No sequels are known after *rubeola* (German measles). Nephritis sometimes, but rarely, persists.

Variola is sometimes followed by peripheral neuritis, or a diffuse myelitis may cause paraplegia—ataxie-variolique. The pharynx may be paralysed alone or with other parts, as after diphtheria, from multiple spreading neuritis. Hemiplegia with aphasia sometimes follows encephalitis. Epilepsy, mania, and melancholia have been met with. Boils are not an infrequent sequel, and local gangrene may occur. Suppurative arthritis, epiphysitis, and necrosis of bone, also otitis media, may give trouble long after convalescence has been established. A grave degree of anæmia sometimes ensues after variola.

Parotitis in the milder forms has no sequels. In the severe forms meningitis is the gravest complication, and hemiplegia and coma may result. Such cases are generally fatal. Metastasis to the testis is rare before puberty, and atrophy of the organ may occur, with hindered development of it, if it occurs early in life. Albuminuria, uræmia, endocarditis, peripheral neuritis, also acute mania and insanity, have been recorded as sequels of mumps, but are happily most of them infrequent. Permanent deafness may result. Optic atrophy has been noted.[13] Arthritis has been observed to follow the subsidence of parotitis, and is probably one of the manifestations of the specific poison of this disease.[14] The pancreas appears to suffer in no degree from the specific toxine.

Pertussis is not seldom followed by chronic bronchitis with pulmonary emphysema. Hemiplegia is rare as a sequel. It may occur in a paroxysm of cough. The associated broncho-pneumonia is sometimes of tuberculous nature. Enlargement of bronchial glands is of frequent occurrence, and one or more of them, especially at the bifurcation of the trachea, may prove infected with caseated tubercle and lead to subsequent general tuberculosis. It is suggested that cardiac valvular disease may be induced by long-continued strain upon the heart and give rise to urgent symptoms in the future. Neither albuminuria nor glycosuria, if present, tends to persist, and the same may be affirmed in respect of the pulmonary emphysema which so commonly arises and of the interstitial emphysema which occasionally occurs, owing to rupture of the lung or trachea in a paroxysm of coughing. Pertussis is sometimes responsible for the supervention of post-nasal adenoid growths. Hæmorrhage into the adrenal bodies has been met with, due to the violence of the cough checking the flow of blood into the veins.[15]

Varicella has no true sequels save in respect of changes which may occur in the rash. Prurigo may result, so-called varicella prurigo (Hutchinson). Ecthymatous sores resembling pemphigus are sometimes met with. The vesicles may become gangrenous in delicate or tuberculous children, and the result is probably due to the supervention of extraneous microbic infection and not to the influence

[10] An excellent account of such cases is recorded by Bellingham Smith and Mary Sturge (Brit. Med. Jour., Nov. 16th, 1895, p. 1213). They met with nine examples of purulent arthritis in 5000 cases. The joints were attacked in the following order of frequency (in forty-five published cases) wrist and hand, elbow, ankle and joints of foot, knee, hip, and sterno-clavicular joint. The time of onset was from the third to the fifth week of the disease, chiefly early in the fourth week, or concomitantly with the onset of nephritis. Cardiac lesions were not commonly present. The arthritis varied from a simple serous to a purulent and destructive form. The simple form is generally called scarlatinal rheumatism. Streptococci were found in the serous effusions. Some cases were purulent from the first. The throat is the common source of infection, but empyema and peri-arthritic abscess may be the original focus. Epiphysitis was not met with, though it was common in the great Dublin epidemic of 1834–1842, according to Kennedy. Septic thrombosis of the jugular veins was not met with.

[11] Samson records a case in which chorea with pericarditis and endocarditis developed during convalescence from measles. J. H. Hutchinson also records four cases in this connexion.—Transactions of the Royal Medical and Chirurgical Society, vol. lxxiv., 1891, p. 229.

[12] Bury states that sixty cases have been described (up to 1893) of paralyses of cerebral or spinal origin developing during the course of, or in early convalescence from, measles. Some of these were probably due to multiple neuritis.

[13] Dr. Caleb Parry records a case of orchitis following parotitis in which obstinate suppression (? retention) of urine occurred long requiring the use of the catheter. Cases of secondary parotitis are of extreme interest. Stephen Paget and others have well described them. They do not, however, concern us in these lectures, inasmuch as they may all be classed as complications rather than sequels of disease. I may refer the reader to an excellent essay on the subject by Dr. Hawthorne of Glasgow, published in the Glasgow Medical Journal, July, 1895, with a complete bibliography of the subject.

[14] Treatise on Rheumatism: A. Garrod, 1890, p. 186.

[15] Museum at St. Bartholomew's Hospital, No. 2320a. Child aged seven months.

directly of varicella poison. Like the eruptive fevers, varicella may be followed by pertussis, a lowered condition of health thus induced paving the way for fresh infection with increased susceptibility to it.

Influenza.—The sequels of this disorder have only been studied with care in the course of the epidemics which have prevailed in the last seven years. They escaped the attention of the older observers. They are very numerous. It may be fairly affirmed that many of the gravest characters of the malady occur after the acute stage has passed away and when convalescence is apparently assured. I think there has possibly been exaggeration in respect of some of the alleged sequels of influenza; still they are, as I have said, numerous. The general asthenic type of the disease is well recognised. The enfeebled mental and bodily states left behind it have been forcibly and sadly brought home to most of us of late, both in our own persons and in our patients and friends. Recognising the fact that each epidemic is signalised by a dominant form for the most part, we may discuss the particular sequels attending, first, the thoracic, secondly, the gastro-intestinal, and, thirdly, the nervous varieties of influenza. The personal factor comes in here strongly in respect of each individual affected, and, as has been said, "each patient convalesces according to his temperament" and, no less, I would say, his diathesis. Nearly sixty years ago Sir Henry Holland noted the long persisting influence of this disease upon the constitution as a remarkable feature; also the variation of parts affected in different individuals or at different periods in its progress. In respect of sequels ensuing on the thoracic forms we may note the prolonged course of the peculiar broncho-pneumonia so often fatal to the weakly and the aged in its earlier stage. Next, the onset of tuberculosis. Abscess of the lung has been several times met with supervening on pneumonia, and Pfeiffer's bacillus has been found in the yellowish brown sputa expectorated from it, together with elastic fibres from the lung. Hitzig[16] records a case in which careful examination proved the matter from the abscess to be free from streptococci, staphylococci, and from tubercle bacilli, and to contain only influenzal bacilli. Pleurisy is common and empyema may result. The heart is often severely affected. Great weakness of the organ is common; arhythmia, bradycardia, tachycardia, and pseudo-anginal attacks with dilatation, may occur long after the illness. Pericarditis and endocarditis are but rarely met with. Vertigo is a very frequent symptom, a tendency to it persisting for months after an attack. The gastro-intestinal variety of influenza may lead subsequently to vomiting, simple catarrhal jaundice, chronic gastro-intestinal catarrh, diarrhœa, or constipation, with marked nervous depression. The nervous variety is apt to lead up to many subsequent troubles. A rapid denutrition of nerve centres is more or less common in all cases presenting any severity in the early stages. Neurasthenia may prevail for one or two years subsequently. Polyneuritis is a common sequel. The arms may be paralysed, with both motory and sensory disturbance, and wrist-drop may occur: moreover, the same process may occur over large areas. Neuritis may involve cranial and other nerves locally. Encephalitis, myelitis, sclerosis of various tracts of the spinal cord, neuralgia, especially the intercostal variety, conjunctivitis, iritis, otitis media, mastoid abscess, malignant endocarditis, parotitis, orchitis, and lymphadenoma, with many other affections, have been noted amongst sequels in various recent epidemics in all parts of the world. Somnolence, or extraordinary drowsiness, with hebetude, is a noteworthy feature. Headache, vomiting, and various mental disorders may occur. Melancholia leading to suicide is by no means uncommon. Mental incapacity long remains, and many patients affected in middle life tell of inability for efforts, mental and bodily, that were easy to them previously. They feel many years older in all respects.[17] The natural level of health may never be regained, or not fully re-established, for two or three years after a severe attack. Abscess of the brain has been several times noted as a sequel, also simple lepto-meningitis. Dr. Harry Campbell has recorded a case in which a young man, a victim of hemicrania, lost this tendency after an attack of influenza. Mental affections may also sometimes subside after an attack. The sequels of this disease are doubtless often very varied and often extraordinary. A medical friend of mine has been unable to take coffee since he suffered from a severe attack in February, 1895, without feeling considerable cardiac discomfort, although there was no arhythmia and the heart sounds remained normal. In his case, too, and in another there remained for months subsequently a liability to paroxysms of low temperature, with extreme chilliness and distressing sensations, observations made in the mouth, axillæ, and rectum recording a temperature of only 96° F. Such attacks continued to occur once in every eight or ten days and not unfrequently in the night. (Nothing afforded so much relief as an ounce of whisky taken as hot toddy.)

Influenza, in common with other infectious diseases, distinctly appears to predispose to the onset of other diseases. The lowered vitality induced by the primary malady leaves the patient a more ready prey to the attack of any other he may be exposed to. Sir William Broadbent has expressed the opinion that an attack of influenza may in this way determine the outbreak of enteric fever, the pyrexia of the former running on into the latter, so that the new malady may appear to be, as it were, a prolongation of influenzal fever. Or a distinct interval may elapse between the one disorder and the other. Translated into the language of to-day, we may substitute for the term "lowered vitality" a condition of the solids and fluids of the body in respect of their powers of resistance to invasion by specific toxines which is unequal to the struggle between them and the infection. We have already noted instances of a like kind in the cases of measles, varicella, and pertussis. It is also conceived by Broadbent and others that germs of diseases may lie latent in the body and remain inoperative till the resistance of the host is impaired by some circumstance, such as infectious or other illness, or traumatism, which forthwith liberates the latent germs with the consecutive onset of a fresh ailment. The occurrence so frequently of tuberculosis after injuries and infectious fevers may possibly be explained in this way, also the development of tertiary syphilitic disorders.

Relapses of influenza are commonly met with and may occur several times at fairly long intervals after the primary infection, and long after the original epidemic has passed away. We may doubt the occurrence of fresh infection from without, as by sporadic influence, in many such instances, and I think we may consider as probable a view of this matter for which I am indebted to our registrar, Dr. Edward Liveing. He conceives it to be not unlikely that the toxine of influenza may act very much as does that of malaria, leaving behind it residues of specific infective matter, which wake up into activity from time to time, and induce fresh outbursts of the disease in response to any conditions which temporarily lower the general vitality of the body. We may thus regard such relapses as evidence of sequels of the direct residual class. I have experience of cases in which four or five attacks have occurred within two or three years and at varying intervals. The conditions in respect of symptoms, type of pyrexia, and general character leave no doubt as to the true nature of the disorder, and intelligent patients, in three cases in the persons of well-known members of our profession, have recognised only too well the specific qualities of it.

Acute bronchocele has been several times observed to follow influenza. One lobe may become greatly enlarged and give rise to dyspnœa or orthopnœa, with a fluctuating tumour. Incisions give exit to viscid fluid with relief to the symptoms, but the discharge may continue to flow for months—thirteen months in a case recorded by Dr. Browne of Alderley Edge.[18] In another case there remained enlargement of the gland for eighteen months, acute inflammation having begun three days after the influenzal temperature fell to normal. One of the most remarkable cases I have seen occurred in a man aged sixty-eight years, brought to me by Dr. Elliott of Chester, in whom great wasting had occurred in the pectoral muscles. This followed an attack of influenza nine months previously. Twenty-eight pounds weight had been lost during that time. The ribs were plainly visible. There was marked difficulty of inspiration and the upper portion of the chest hardly moved. There was no myoidema. The brachial muscles were soft but those of the lower limbs were firm.

[16] Munchener Medicinische Wochenschrift, Aug. 27th, 1895.

[17] One of my patients aged sixty-eight years, a former athlete at Cambridge, stated that he felt like a man of thirty-five till he had influenza; afterwards he felt like a man of seventy.

[18] Brit. Med. Jour., June 8th, 1895, and references to other cases May 2nd, 1885.

There was general weakness and early fatigue on walking. Improvement slowly followed treatment by massage, warm douching, and dosage with strychnine, phosphorus, and arsenic. This man was at one time apparently in peril from respiratory difficulties. There was evidently some focal myelitis in the cervical portion of the cord. My colleague, Dr. Lewis Jones, has given me particulars of a case in which wasting of the muscles of one buttock followed after an attack of influenza. Recovery ensued after treatment. Bladder troubles may set in and persist after an attack. Diabetes has been several times observed as a sequel.[19] Arthritis and multiple synovitis sometimes follow influenza. At the outset of many cases it is sometimes difficult to be sure that rheumatic fever is not in progress. There may be pains in the joints and pyrexia. The two disorders may even occur together and lead to a very grave condition owing to carditis. Cases have been carefully observed in which symptoms of myelitis, involving several tracts in the cord as well as the cornua, have led to arthritis or true spinal arthropathy. Dr. Sansom has directed attention to such cases, and has carefully studied them.[20] He has shown that there may be both affection of the cord and of the peripheral nerves in such instances. In a case he relates at length there was polyarthritis and symptoms pointing to disease of the anterolateral columns, muscular spasms, and contractions, motor paralysis and muscular wasting, also sensory changes, incoördination and delayed transmission of thermic and other impressions. No pyrexia was present. The subject was a woman of rheumatic proclivity, but Dr. Sansom found no ordinary symptoms of rheumatic fever. The illness began four months after a confinement and was clearly influenza, and many of the above symptoms were present on her admission to hospital. She left benefited, but returned in two months' time with arthritis of the left knee newly set up. This was six months after the attack of influenza. An almost perfect recovery from all the symptoms ensued, and this is an encouraging fact to note, since it relates to the prognosis of nearly all such grave conditions following influenza. My colleague, Mr. Howard Marsh, has recorded several examples of arthritis of this nature.[21] He has found the hip-joint most often attacked. Synovitis first sets in, with stiffness and swelling. Muscular wasting soon follows. Severe sciatica occurred in one such case. There was fever, with a temperature of 102° F., in one case. The symptoms usually subside in two months' time. In one instance the disorder followed six months, and in another seven months, after attacks of influenza. The conditions appear to simulate tuberculous disease of the joints, but the prognosis is generally satisfactory. Mr. Jennings has recorded two cases in which influenza appeared to cause reopening of old wounds in the skulls of miners which led to abscesses and fatal results.[22]

Were I to enter at length in laying before you an account of the sequels of influenza as set forth in the special literature on the subject during the last five years the whole time allotted to me would not suffice for the purpose. For a minute account of these I would refer you to the second edition of Dr. Althaus's work on influenza.[23] He records instances of every variety of complications and sequels with an elaboration into which I cannot attempt to follow him. They amount to at least sixty in number, and this writer has calculated that varieties of sequels may be looked for in about 20 per cent. of all cases. After perusal of this work one must not feel surprised to meet with almost every known malady as a sequel of influenza, and the prospect is, indeed, almost overwhelming. At this moment, however, I may perhaps venture to say, *Satis est, quod sufficit.*

Erysipelas.—Mental disturbance is rarely a sequel, but mania and delusions may occur on the subsidence of local symptoms. Recovery is the rule. Palatine and laryngeal abductor palsy followed one case complicated with pneumonia. The laryngeal paralysis necessitated tracheotomy and was permanent.[24] Bradycardia has been noted. Disappearance of chronic skin diseases has sometimes occurred after an attack of erysipelas, such as eczema or lupus, and sarcomata have also been similarly found to subside. Treatment for the latter has accordingly been practised of late by introducing cultivations of toxine from erysipelatous textures into the growths, so far, I believe, with no very satisfactory results.[25] The tendency to recurrence of erysipelas, which has hitherto been explained by fresh infection with the specific poison, is now believed to be due to the survival of germs (Fehleisen's streptococcus) which have remained latent in the tissues, and are provoked into activity by the irritation of traumatism or by exposure to undue heat or cold. Patients of gouty tendency were formerly believed to be especially liable to attacks of erysipelas; Caleb Parry and James Gregory in particular directed attention to this fact, but I am not prepared to confirm their statement so far as my own experience guides me. Traumatism in any degree predisposes to erysipelas, with or without breach of surface, in the former case by admitting specific germs, and in the latter, probably, by affording a *locus minoris resistentiæ* wherein those that may be dormant in the system may become active and potential. Malignant endocarditis has been observed, though rarely, as a sequel; and streptococci have been found in the aqueous humour in a case of cyclitis following erysipelas.

Diphtheria.—The sequels of this disease are so remarkable and at times so serious that they have attracted close attention. I cannot discover evidence that these very obvious consequences were witnessed or described by the older physicians. But since diphtheria became endemic in this country in 1855 they have not failed to be noted and recognised as depending upon the original malady. The albuminuria which is so common during the active stage of the disease usually passes off leaving no trace of nephritis. But it may persist for two months subsequently. Dropsy is of very rare occurrence in this relation. Parenchymatous nephritis has been noted, but it is open to question whether the disorder thus complicated is not scarlet-fever rather than diphtheria. It is certainly very rare. The albuminuria is probably of toxic origin and so far specific. The gravest sequels are paralytic conditions, and the latest researches respecting them plainly indicate that they are due to a toxic neuritis which may be widely spread. These paralyses occur in from 10 to 20 per cent. of all cases. They occur usually in from two to six weeks after the onset of diphtheria and are commonly more marked in adults than in children. They may be local or general. Of the former we note palatal and pharyngeal palsies, strabismus, ptosis, ophthalmoplegia interna, and facial palsy. With some of these may be associated symptoms of general paresis or actual palsy. The general paralyses are of the same nature as the local, and are due to polyneuritis of toxic nature with loss of reflexes. The vagus nerve is especially apt to suffer, and the evidence of this is afforded by great cardiac weakness with bradycardia or tachycardia, or by fatal syncope. Vomiting may be troublesome, and may precede the cardiac symptoms. Loss of knee-jerk may sometimes be the only sign of nervous sequels. This is, however, always a symptom indicating gravity and demanding vigilance in any case. The sphincters, as a rule, are unaffected. With due care in treatment and an intelligent appreciation of the special dangers of such cases the prognosis is on the whole good. Perfect recovery may be anticipated within three or four months. Fagge records a case in which signs of palatal palsy had remained for four years after diphtheria. Rarely there may persist some enfeeblement of muscles in the limbs. I have a general impression, although unsupported by any figures in proof of it, that the nervous sequels of this disease have been less frequently met with since treatment by antitoxin has been employed. We are fairly justified in anticipating that such may be the case. Recent researches of Sidney Martin and Kanthack plainly indicate that the diphtheria bacillary toxine induces a specific and spreading neuritis in animals, and hence we are justified in the assumption that a precisely similar process occurs in the human subject. According to the observers just mentioned the neuritis of diphtheria is primary, the sheath of Schwann being first attacked and the axis-cylinder of the nerve subsequently. Kanthack has found the bacilli in the spleen and in the lungs. Dr. Pasteur has directed attention of late to the association of respiratory paralysis with cardiopulmonary symptoms in diphtheritic multiple paralysis.[26] In a series of 64 cases of diphtheritic paralysis serious cardiopulmonary "crises" occurred in 20, and in 17 of these there

[19] Hennig: Beiträge zur Symptomatologie und Therapie der Nervosen Formen der Influenza. Münchener Medicinische Wochenschrift, Sept. 3rd, 1895.

[20] Clinical Journal, Jan. 9th, 1895, p. 165.

[21] Diseases of Joints, second edition, 1895, p. 30.

[22] Brit. Med. Jour., June 8th, 1895.

[23] Influenza, &c., London, 1892.

[24] Frith: Berliner Klinische Wochenschrift, 1874, No. 49 (quoted by Gowers).

[25] Butlin: Clinical Journal, Jan. 29th, 1896, p. 213.

[26] Clinical Society's Transactions, vol. xxviii., 1895, p. 171.

was associated paralysis of the diaphragm. Most of them occurred between the ages of two and six years. Dr. Pasteur relates the particulars of 32 cases in which the diaphragm and intercostal muscles were more or less involved and gives an admirable and suggestive *résumé* of them. He makes a distinction between cases in which the disorder of the phrenic and intercostal nerves is peripheral and those in which the phrenic nerves are involved centrally or near to their nuclear (bulbar) origin. In the former the diaphragmatic paralysis may develop insidiously and is altogether less grave, in the latter it may come on suddenly, in an acute crisis, with symptoms of dyspnœa and asphyxia, also with transient pyrexia and vomiting. Such cases are almost certainly fatal. Phrenic or intercostal palsy appears, according to Dr. Pasteur, to determine collapse of the adjacent portions of the lung and especially of the base of the right lung.

As indicating the remarkable advance made in pathological and clinical study in quite recent times I may recall here a passage taken from Sir Thomas Watson's classical lectures to be found in the last edition, issued just twenty-five years ago.[27] He remarks: "All these sequelæ are significant of blood-poisoning. We cannot suppose that the nervous symptoms—transient and wandering as they often are—can have their cause in any grave or material damage in the nervous centres. They denote, I presume, disturbed nutrition of the tissues from imperfect or altered conditions of its circulating blood." Watson was right in his belief that the nerve-centres were not involved, but the whole subject of neuritis in its many forms now constitutes a new chapter in medicine, one for which few materials existed in Watson's time, and those the careful observations of Chomel and of Graves, now sixty-eight years old, which might have, but somehow did not, set inquirers upon the track to discover peripheral neuritis.

As indicating how the supervention of a new infection may prepare the way for fresh outbursts of diphtherial disease I may quote the case, recorded by Dr. Hayward, of a child who, while recovering from diphtheria, was attacked with measles. On the invasion of the latter there was a renewed activity of the lingering diphtherial bacilli with a reformation of faucial membrane. We have already noted how similar troubles may ensue when the vitality is lowered in cases of influenza, measles, varicella, and pertussis. Disorders of the mucous membrane of the nose and otitis are to be included amongst the occasional sequels of diphtheria, also post-nasal adenoid growths. It is probable, if not certain, that some of the post-diphtherial sequels are due, as in other cases, to the results of mixed bacillary infections. The commonly associated broncho-pneumonia has been proved by Kanthack to be due to specific bacillary invasion of the lung. Malignant endocarditis is sometimes a sequel of diphtheria.

Malarial fevers.—The sequels of these present several problems upon which much light has been recently shed since the discovery of their intimate nature and their dependence upon the several phases of the life of certain hæmatozoa or sporozoa. We have the fact that, according to the degree of impregnation of the system by these parasitic bodies, there remains for long, sometimes for life, a tendency to recurrence of specific pyretic processes under certain provocations, and not seldom the establishment of what is well known as malarial cachexia. A subject of the latter condition may resist all treatment and die of anæmia or from hæmorrhage. The liver and spleen are commonly, but not always, enlarged. Paraplegia, sometimes spastic, has occasionally been noted. Intermittent paralyses, intermittent aphasia, cramps, hyperæsthesia, anæsthesia, articular pain and swellings, œdema, and urticaria very specially have been noted to follow malarial impregnation, all of these impressed with a periodic or intermittent character. These strange conditions we now explain by reference to the particular organs infested from time to time, and yielding manifestations of the development of the specific blood-parasite. Saccharine diabetes is sometimes distinctly traceable to previous malarious impregnation. Neuralgia in various forms has been noted as a sequel affecting intercostal, occipital, sciatic, and testicular branches. The supra-orbital branch of the fifth cranial nerve is especially liable to be thus involved, the condition being sometimes described as "brow ague." We have to be careful in assigning to malarial influence any conditions of a periodic or intermittent character which may not certainly be connected with submission, at some time or other, to exposure to specific hæmatozoal infection. It is a character of all neuralgias to be paroxysmal and intermittent, even, as shown by Weir Mitchell, when of traumatic origin. But it appears certain that the effects of malarial impregnation may for many years induce a condition which modifies the course and characters of other ailments. Thus, according to Fayrer, "periodicity complicates all diseases in India." A chill induced in any way may awaken activity of febrile symptoms many years after subjection to malarial influence. Neurasthenia and spasmodic asthma are amongst the protean manifestations recognised in this relation, also intermittent torticollis, and a rebellious form of hiccough. This peculiar latency of malarial influence has now to be considered with reference to the modern doctrines held as to the nature of the disease. It is believed that the malarial germs are not absolutely destroyed, but only rendered impotent or latent by drugs held in repute for cure, such as quinine and arsenic. Improved general health of the patient appears to render the hæmatozoa latent for a time. New forms of illness may induce fresh activity of the hitherto latent germs. According to Manson, the causes of latency are various even for the same micro-organism. It has been proved that individuals may become immunised to the toxines of bacilli although the microbes may continue to exist and grow. The latter may thus apparently remain latent or dormant, englobed in cells or prevented by a barrier of cells from gaining access to the body (Washbourn). In malarial infection there is often evidence of the presence of varieties of hæmatozoa, or admixture of parasites, each of which may cause various types of fever. Quinine has more power in destroying some of these than others. It appears certain that some of these bodies undergo development in various organs of the body, especially the liver, spleen, intestinal mucous membrane, brain, and bone-marrow. Many of the symptoms appear to depend upon the organ selected for their accumulation and sporulation. The blood is most impregnated at the beginning of a paroxysm of fever, and least so in the apyretic intervals. As Manson has pointed out, the principal acts in the drama in pernicious cases are played out in the viscera, whence, at intervals, swarms of parasites are embolically shed into the circulation, producing the varied symptoms of malarial pyrexia. We may account for the lingering tendency to recurrence of paroxysms by supposing that the specific hæmatozoa in a given case have never been quite annihilated, but have remained latent or quiescent, locked up, as it were, in some viscus or tissues of the body, and only set free by the onset of some general disturbance which lowers the vitality and resistance of the patient. I think we may fairly anticipate that some absolute proof in support of this conception will be presented to us before the lapse of many years.

Dengue may be followed by troublesome enlargement of the lympharia for many weeks after the illness, and the same mental and physical prostration may long remain after an attack, as is witnessed after influenza.

Epidemic cerebro-spinal meningitis may have for sequels persistent vomiting and sometimes a spinal arthropathy, even purulent arthritis. Optic neuritis with atrophy and blindness has been noted, also otitis interna with deafness, leading in children to deaf-mutism. Headache may persist for months or years. Chronic hydrocephalus, imbecility, and aphasia may occur. Peripheral neuritis of some of the cranial or spinal nerves has been observed.

Several sequels are recognised as results of *Dysentery*. A form of arthritis sometimes sets in, perhaps a month after recovery, rheumatoid but not rheumatic, possibly akin to gonorrhœal or infective arthritis. Several joints are commonly involved, but there is not much pain. These troubles generally pass away within a few weeks or months, and have been observed to supervene in milder rather than in severer cases of dysentery. The swelling may be very great. No sweating or cardiac complication has been noted, and the degree of pyrexia is usually mild. Chronic nephritis may follow an attack of dysentery. Neuritis leading to paraplegia has been noted. Chronic dyspepsia, irritability of the bowels, and a cachectic condition, with wasting and anæmia, may ensue after severe and repeated attacks. This state is doubtless due to destruction of large tracts of the mucous coat of the colon, which are replaced by scar-tissue of no functional activity.

Cholera.—Convalescence is sometimes protracted. Anæmia may long remain, and the menstrual functions may cease

[27] Lectures on the Principles and Practice of Physic. Fifth edition, 1871, p. 896.

for many months. Tetany may affect all the limbs, and may spread to the trunk and involve the glottis, causing suffocation. Phlegmonous furunculosis, sometimes ending in gangrene, may supervene, and this condition has been found associated with glycosuria. They are not improbably due to secondary infections from the intestinal surface. Dyspepsia and rebellious diarrhœa may persist after an attack. Bronchitis, pleurisy, pneumonia, suppurative parotitis, gangrene of the extremities, and ulceration of the cornea have all been noted, also diphtheritic inflammation of the fauces and genitalia. Paralytic sequels have been met with, also mental disturbance. One attack is not prophylactic against a second one.

Oriental or bubonic plague.—Some sequels have been noted in patients who have suffered and recovered from this specific and most contagious disease. Furuncles, dropsy, partial paralyses, and mental disturbances are amongst the most frequent. The fact that Kitasato's bacillus has been found in the blood, glands, and viscera, affords an explanation of such consequences and leads to the belief that they depend, like those of enteric and some other fevers, upon microbic residues, with, possibly, additional and fresh (mixed) infections of other, though non-specific, toxic elements.

In my next lecture I shall discuss the sequels of syphilis.

A Presidential Address

ON THE

PRESENT AND PROSPECTIVE CONDITIONS OF MEDICAL EDUCATION.

Delivered at the Fourth Session of the Inter-colonial Medical Congress of Australasia at Dunedin, New Zealand, on Feb. 3rd, 1896.

BY FERDINAND CAMPION BATCHELOR, M.D. DUBL., L.R.C.P. EDIN., M.R.C.S. ENG.,

FELLOW OF THE OBSTETRICAL SOCIETY OF LONDON, VICE-PRESIDENT OF THE BRITISH GYNÆCOLOGICAL SOCIETY, LECTURER ON MIDWIFERY AND GYNÆCOLOGY AT THE OTAGO SCHOOL OF MEDICINE.

[THE President commenced by thanking the members of the Congress for the honour they had conferred upon him in electing him as their president and then briefly referred to the place of medicine among the exact sciences. He reviewed the progress that had been made, first, in regard to certain instruments of precision, such as the clinical thermometer, the stethoscope, the sphygmograph, and the microscope, and then passed on to some of the more striking advances within the last twenty five years of chemistry in its relation to medicine. The progress of experimental physiology was the next topic dealt with, and the progress of bacteriology and the antitoxin investigations were ably passed in review. Dealing with the scheme of professional study the President said:—]

In the face of these vast changes, what corresponding advance may there be discerned in the education provided to meet the consequent new conditions? Practically, a survey of the range of medical education throughout the empire shows that there has been very little change in the education we provide at the earlier stages of a young man's course. The conditions of entrance into professional study vary in a remarkable degree. While the Universities of Oxford and Dublin do not confer a medical degree unless the candidate has previously graduated in arts, there are many examining bodies which ask for no further proof of preliminary education in literature and science except that of a common leaving certificate such as a schoolboy may win in England by way of the local examinations or in Australasia by a somewhat low-graded matriculation. Now ever since 1873, the year of Forster's Act, there has been in Great Britain and throughout the empire a fairly satisfactory system of primary education, graded into standards of which the highest is usually passed by children at the age of thirteen. Three years' further study at a respectable high school on the lines of a liberal education should bring a boy to the level of a sound test of a higher quality, I think, than our matriculation examination here provides. Then should ensue two years' study of special scientific subjects preparatory to the strict professional education, which should continue for at least four years further. What however, is the case with regard to this preparatory study—the belt of ground occupying the space between leaving school and beginning professional education? I venture to think that this most important detail of junior professional work remains in the most chaotic and unsatisfactory condition. The medical man of the immediate future should, above all things, aim at being scientific in his habits of thought and methods of practice. He should have acquired the eye of science, the ear of science, the hand of science, the judgment of science; he should know that he really sees what he is looking at, hears what he is listening for, and touches with discrimination what he handles. He should be capable of judging clearly in his diagnosis and be in the habit of looking for clearly recorded phenomena on which to base his ultimate conclusion; his practice and his theory should be mutually helpful. He should be able, not merely in a humble way, to follow the great pathologists of the hour in his application of their work, but also to appreciate their methods and their labours, if not actually ambitious to emulate them. As fast as medicine continues to travel out of the region of empiricism, so will it be needful for empirical modes of thought and practice to be laid aside. We may say, after the great German poet, "More light"—that is, "more science, more science"—for to us science is light. In my own time the apprenticeship system as a training of young aspirants to the medical profession was still in vogue. It was thought that after registration the best way a young man could commence his work was to enter what might be called a medical man's dispensary. Readers of "Middlemarch," that most faithful picture of medical life in England fifty years ago, will recollect how justly a medical man was then identified with his dispensary. Compounding drugs, extracting teeth, bleeding, dressing of small wounds and sores, with occasional clinical practice among the poor amidst the most adverse circumstances—these were the conditions which were held to seriously incline a young man to his professional career. I believe there are many respectable opinions still expressed in approbation of this older style of medical training. It produced good men; why should it not continue to produce good men? Doubtless, for the knowledge than accessible, the training was good and sound. Most work was empirical, and it was surely of some advantage to be associated with an empiric of great experience and possibly considerable success. So much depended upon observation of more or less transitory significance that in the absence of scientific or theoretical principles the methods of actual practice were, doubtless, as good as might be got. However, I am inclined to think that if anyone still advocates the old apprenticeship plan as suitable to modern requirements, such a man has allowed the tide to run past him; he has failed to note the signs of the times, and does not observe that exact science has advanced, is advancing, and will continue to advance in every department of our work, and that the need for increased opportunities for scientific training become for our junior students more and more impressive. It would be, in my opinion, most beneficial to have one standard of junior work fixed by the General Medical Council—a course covering at least two years from matriculation. About the matriculation itself, except that it should be a fairly exact test examination for high and grammar schools so as to give boys a respectable leaving certificate—about this I say nothing, but I am strongly of opinion that for two years subsequently, if not more than two years, the whole time should be given up to purely scientific study. It ought to be noted that with remarkable prescience the senate of the University of London have for many years past insisted upon a scientific intermediate between matriculation and the first professional examination. This preliminary scientific examination is of such a kind that it practically enforces two years' work at physics, chemistry, and general biology, and the candidate is not eligible for the final M.B. examination until four years after his success in the preliminary scientific examination. I do not now argue whether it is desirable for us to aim at a standard so rigorously high, because I do not think, in our conditions in Australasia, it is possible to command the supply of men willing to undergo such severely exacting tests; but it seems to me that the first two years of the medical curriculum of the University of Sydney is quite good enough for our wants at the present

stage of our population and requirements. In the University of Sydney professional subjects do not come under the student's notice until his third year, during which year he is limited to materia medica and therapeutics. His professional studies do not commence until his fourth year, while chemistry, physics, anatomy, physiology, and biology form the whole of his studies for the first two years. Thus in this admirable course full provision is made for the scientific habits of thought and method for which I am pleading—habits which, if once acquired, hasten amazingly all subsequent progress and make a man more apt to learn for all the rest of his days. It seems to me that what we have a right to demand is that our junior men shall be trained in scientific lines. It is the manner of their training that is paramount; the matter of their training, however important of itself, is really of subsidiary interest. In making this reference to the University of Sydney I desire to record my respect for the work done in the other medical schools in Melbourne, Adelaide, and in our own. I have visited each centre of medical work quite recently and have endeavoured to form some estimate of the value of each. I am convinced that according to the standards for which I am contending that the University of Sydney approaches most closely to my ideal. As to the rest of the empire, the condition of things is still most disorderly. It was no part of my original design to include in this address the subject of professional education. I had been, in the main, contending that the rapid and wide extension of scientific knowledge has not been yet overtaken by a proper readjustment of the subjects of study for our junior students, to which argument has been added a word or two of suggestion looking towards reform.

But there is a point connected with our colonial system of superior professional education which should not be omitted. I refer to the point of contact between our hospitals and our medical schools. In Great Britain many of the hospitals are of a respectable antiquity, and are older by many generations than the schools attached to them; it is not, therefore, true matter of surprise that these hospitals, hoary with age, find themselves unequally matched with the child that has become almost their rival, and that traditions, vested rights, and antiquated regulations should from time to time cause a harsh note of discord to be struck as between hospital and school.

In Australasia, where every institution is young—where hospitals, instead of being maintained by endowments and voluntary contributions, are for the most part supported directly out of rates or taxes, while the medical schools have been called into being by universities or Acts of Parliament, and are principally maintained out of endowments or rates and taxes,—in such a case it ought to be that each is the handmaid of the other; that the home of suffering and the message of relief should be united in the close ties appropriate to the necessities of each; that the science of healing should profit directly and progress directly where its work is subjected to the severest tests; that, in fact, methods in healing should be identified with the science of healing, that the teaching body should be identified with the executive body in any hospital where there is a medical school. What, however, do we find to be the case? With one exception, to which I shall advert later, our hospitals are under a control which has nothing to do with any university or any collegiate board. As a matter of fact the managers of the hospitals know little, and would at times seem to care less, about the medical school, so that the clinical teachers in Australasian hospitals are in no way responsible to the university councils, which in their turn are responsible to the public for the character and results of the teaching offered to the students. I take the worst case I know of, perhaps the worst in the British Empire, in which the interests of the public, of the patients, and of the profession are sacrificed to collateral questions or subordinated to side issues. In Melbourne every third year the whole medical staff is exposed to the ordeal of a public election; the board of management, much less the University Senate, is allowed no voice and no control; the election is in the hands of the subscribers; hence when the fateful day arrives all the features of a contested election become prominent—election tickets are put out and election devices prevail, cards soliciting your interest and vote for Dr. D—— and Mr. C—— are found in hotels and bars and railway stations and in cabs. Dr. D—— and Mr. C—— are for the next three years to be entrusted with thousands of pain-racked men and women, the clinical teaching by the bedside, and the ethical training of aspirants to our profession. To secure the position, so responsible, so admirable, they are driven to have recourse to the usual mischievous dodges, practices, and traps of an election contest. Surely it is a scandal that in any British community, much less in a community which takes pride in its progressive spirit, such a pernicious system should survive for an hour. In Adelaide difficulties arise out of a system not so mischievous, but radically bad; the university has little control in hospital affairs—in fact, only one member of the University Senate has a seat on the hospital board. It so happens that in Adelaide matters have worked with reasonable smoothness because the Government in the past have taken care to appoint to the board men known to have some interest in, and sympathy with, the medical school, but there is no guarantee for permanency in the constitution of things, which seem to be based upon an unreasonable jealousy of the profession or that wider and deeper impatience and distrust of learning—a sentiment noticeable and operative in every democratic community. In New Zealand a similar state of affairs obtains, modified in its features, but powerful enough to have occasionally imperilled the very existence of the medical school. Our survival is simply owing to the enlightened good sense and moderation of the men who have happened to have been elected to the board of management during the past few years, and who retain their position on that board in virtue of considerations entirely other than those of the interest of our school. I do not think our profession should escape its share of blame for these results. In a town possessing a medical school it is clear that of our professional men some must be excluded from the university appointments, while others win them; the former, being more numerous as well as unsuccessful, coöperate strenuously to oppose the university teachers should they make any claim for priority in the distribution of hospital appointments. The consequence of all these combined sentiments and customs is to dislocate and derange our teaching, to render clinical instruction of relatively weaker value, to attenuate the responsibility and to sacrifice the future of our profession to the jealousies and bickerings of the hour. The university, however, now stands clear of animadversions such as these. The difficulties between the university and the board of the Sydney Infirmary were felt to be so great and the prospects of a satisfactory solution so remote that it was in a great measure at any rate to obviate these troubles that the Prince Alfred Hospital owes its foundation. The relations between this hospital and the university senate are of a satisfactory character—a fact which, added to what I hold to be the superior arrangements of their course of study, should go far to see the Sydney school the most efficient and most useful of all the Australasian schools of medicine. Surely here is a point upon which we might close up shoulder to shoulder and, in view of the requirements of the age, insist that for the public good it is requisite that our students should be sent out fully armed to cope with the increasing demands upon their knowledge, their skill, and their judgment, and that the bodies responsible for the proper education of our students should have a controlling voice in the appointment of their teachers and in those details of hospital management which directly concern the education of their students. I have digressed a little upon this matter before bringing my address to a close, because until these barriers are removed our progress will be both painful and slow.

Passing, however, from considerations that are local and must be temporary, I would desire indulgence for a few words dealing with more general notions connected with our profession. It has been finely said that the most valuable asset of a State or of a nation is the people. A healthy mind in a healthy body is the gist of the old Roman prayer, a sentiment obviously applicable in the widest sense to the condition of a people. The joint prosperity and advancement of a nation depend upon its physical and moral health, on that well-balanced condition of the human framework which interprets and affects all that belongs to thought and action. How far morality depends upon health it is not my province to discuss, but if, as without doubt is the case, the blocking of a minute artery in the brain will ultimately reduce a reasonable and self-restrained man to the condition of a vicious brute, it is obvious that morality and health are united to each other beyond the power of dissolution. If this is so, it must be further admitted that a man's health vitally influences his life, determines the quantity and quality of his work, the nature and variety of his temperament, the influence of his

intercourse with his fellows, and his general civic value. The conditions of civilised life often tend to increase the difficulties of maintenance of health. By crowding men into cities disease is more quickly propagated and harder to arrest. New varieties of disease are noticed; perhaps the variety is actually evolved. The changed environment of men tends to slowly bring about a corresponding change in their condition and vital necessities—a change always slow, frequently dangerous, and often ill-understood. Side by side may be noticed a group of moral and social facts, some of them highly disturbing and disintegrating to the previous social and conventional structures—facts which influence directly mental phases, which in their turn bring about much dislocation of healthy conditions and states. From this quarter arise all the fads, hobbies, and follies of experiment, which go far just now to interfere for the time being with true progress, and tend to substitute quack remedies for those social troubles which really have their roots deep down in the physical condition of men. It will be largely the duty of the medical man of the future to watch vigilantly these factors, observe their tendencies, and be on his guard in an attitude of expectancy for some manifestation of disorder which will test his sagacity while evoking his powers of admonition and advice. Among other things, it becomes his duty to enforce the claims and necessity for a duly organised department of public health. This is, perhaps, the one point upon which medical men may aspire to a reputation for disinterestedness. If, according to the common notion, we have such a direct selfish interest in disease that an epidemic or period of general sickness means prosperity for the medical man, it is clear that the whole duty of a medical man to himself should be to leave questions of public health alone, to treat with silence all agitation for the supply of pure water, the control of drainage and sewerage, for the improvement of hospital management, for the destruction of filthy and corrupt habitations, for the restraints on adulteration, on the sale of butcher's meat and fruit, for stricter administration of preventive laws with regard to quarantine, and generally agitation of any kind in the direction of health reforms. But what, as a matter of fact, is the case? It may be fearlessly asserted that Sir John Simon and Mr. Edwin Chadwick, both men eminent in our profession, "invented" Public Hygiene. These men undertook their work in pre-Pasteurian days, when all they could do was to improve paving and scavenging, attend to drainage, lighting, and water supply, and prevent overcrowding; but the gospel of cleanliness, at any rate, was established beyond all cavil.

In Great Britain, where there are, on the whole, fewer restraints on personal liberty than anywhere else in the world—where in consequence that education that free men give each other is of a higher standard than elsewhere; in Great Britain, I say, which stands at the head of the world in the matter of public health and all that pertains to it, matters have been brought to such a stage of perfection that our profession, backed by a highly trained and sympathetic public opinion, has practically more than once rolled the advance of cholera back from the shores of Britain. I was in England in 1892, when the cholera was raging in Hamburg, and nothing struck me more than the zeal and energy of our hygienists in teaching and warning the people of England what to do in the dread emergency. Millions of printed notices and bills were distributed by local health boards and health societies; sensible, pithy, and lucid little articles, useless, of course, except among an educated community, which, however, were so widely read and applied that, aded by them and a most watchful system of quarantine, Great Britain came through the threat of that scourge unscathed. Thousands of pounds were spent in that campaign, and never were thousands more profitably and perhaps more skilfully expended. The impulse to hygienic reform is weaker and more easily expended and exhausted in Australia and New Zealand than it is in Great Britain. There is nothing on this head even now to add to what was so well put before the Congress at its last meeting by Dr. Whittell in his presidential address on Public Health; but in our New Zealand towns generally, I believe, a movement in the right direction has commenced—public attention has been drawn to the matter by voluntary associations, which have now all the vigour of youth. I hope they will succeed in educating the people out of that ignorant impatience of control or still more deadly apathy which, both of them, are characteristic of weaker notions of the duties and obligations of civilised life. Legislation of a more central and less permissive character is desirable—legislation that does not depend for its administration upon the fortuitous and baffling currents of local political feeling. There is need also of increased activity among ourselves who, if we live *by* the public, live also *for* the public and have duties which, according to the trust reposed in us, are not measurable by fee or reward. It is always difficult to rise to higher lines of professional duty and activity, but for the younger men it is always desirable that they should cultivate aspirations and ideals; and of this I am certain, that in the immediate future there lies before our profession increased—vastly increased—scientific means and appliances for coping with our noble work and that to intelligently use these appliances and means will require increase of aptitude and development of opportunities for necessary training. For this augmentation of our power augments as well our responsibilities, it will demand on our part a greater mental energy, a more rigid discipline, a more single devotion to our ideal of duty, and a more general appreciation of the work submitted by a few eminent leaders to the opinion of thousands in the practice of our profession. Our increased resources should in the long run tend to produce among ourselves a distinct advance in professional type, while in society at large, by removing or obviating the causes and outbreaks of disease, they should increase the general volume of happiness and thus augment the social and moral well-being of mankind.

HOSPITAL ACCOMMODATION BY THE USE OF SHIPS (HOSPITAL SHIPS).

BY P. MURRAY BRAIDWOOD, M.D., F.R.C.S. EDIN.

Prelude.—That ever-recurring screen of ignorance euphemistically termed "experience" obscures at present the state of our Naval Medical Service. In the event of our nation being suddenly implicated in warfare how would the members of our oldest public service be cared for according to present arrangements? Our Naval Medical Service, as at present constituted, meets its claims fairly well, though those who form part of it have good reason to complain of its many defects. My aim in the following paper is to point out a better way of preparedness to meet emergencies. When this country is dragged into war we utilise our Naval Medical Service as it is, but have no reserved medical aid to requisition if necessary. Our Naval and Army Medical Services unite in supplying the needs of the sick and wounded. The navy during the Ashanti war undertook the lodging, victualling, and conveyance of the sick, and furnished everything necessary for these purposes; the army furnished medical and other attendance on the sick, provided all articles of hospital clothing and bedding, medical, surgical, and hospital appliances used by them, and undertook the washing of all hospital clothing and bedding.[1] Our standing army service can be supplemented by the "reserved forces" (militia, volunteers, &c.), with their medical officers; but in the case of our navy we can reckon on no such supplement. This lesson we have been taught by all recent wars and we continue still in the same state of backwardness. We rest contented with meeting our daily wants, and when our Government proclaims war we meet our suddenly incurred responsibility by makeshifts. We subsidise from passenger-carrying steamship companies large vessels like the *Carthage*, *Coromandel*, &c., at an enormous cost and have them knocked about (converted is the official phrase) to suit hospital purposes. This aim is, however, reached very imperfectly; such vessels are often, so to speak, "spongy," often unwieldy, with corners, crevices, and angles of all descriptions admirably calculated to house and retain objectionable peculiarities, and often needing repair. Henri Dunant exposed, in most pathetic language, the horrors of a battlefield when he described that of Solferino, where more than 300,000 men fought for fifteen hours on June 24th, 1859. Here "the best organised military medical services of three of the best armies of Europe were not able to render proper help and shelter to all the sufferers at the proper time." Rob. Hall in 1802 wrote in his "Reflections on War" that to confine our attention to the number of the slain would give us a "very inadequate idea of the ravages of the sword."

[1] THE LANCET, Feb. 14th, 1874.

His detailed account of the accompaniments of warfare in his time is very touching and contrasts with those of the present day. The Red Cross Societies and like aids have remedied the sad state of matters which existed at the commencement of this century.

Historical sketch.—At different periods we read of some solitary instances of conventions made between the chiefs of belligerent armies for the neutralisation of the hospitals and the medical service of the sick and wounded received into the hospitals; but these contracts were mere temporary agreements depending on the momentary disposition of the chiefs in command of the belligerent powers and ended with the campaign for which they were made. "At the time of the Crusades Sultan Saladin allowed his enemies, the Hospital Knights of St. John, to remain nursing and tending their comrades in the city of Jerusalem, which he had conquered. In 1743, during the Austrian Succession War, an agreement was signed at Aschaffenburg between the Austro-Hanoverian (Pragmatic) army, under George II., represented by General Count de Stair, and the French army under Marshal de Noailles, the belligerents agreeing to regard the hospitals neutral and to give protection to the wounded. A similar convention was made in 1759 during the Seven Years' War, and signed by the English general, Sir Henry Seymour Conway, and the French chief, Marquis du Barrail. A convention between Louis XV. and Frederick the Great, stipulating the neutrality of the hospitals of the wounded and of all the persons belonging to the hospital service, was signed at Brandenburg, the 7th of September, 1759, by the French Marshal de Rougé and the Prussian General von Buddenbrock."[2] At the last naval battle between the Austrian and Italian fleets (1866) "the want of neutral aid, which was enjoyed by the warriors of the same nations on land, was bitterly felt by the navy." In impartial statistics it was stated that more than 400 men were drowned uselessly in this battle while they might have been easily saved.

My thoughts were directed to the deficiencies of our Naval Medical Service during warfare by the published accounts of the arrangements for the transit and treatment of our sick and wounded at sea during the Egyptian War in which we last took part, corroborated as these statements were by personal friends who served in this work on that occasion. With regard to hospital ships, I must, in the first place, call attention to a deficiency which exists in the organisation of the Naval Medical Service of most nations. This organisation is very expensive, and yet it seldom answers the purpose from want of a sufficient number of surgeons and nurses to supply the fleet and of the necessary room on board a fighting vessel for attending to the sick and wounded. The best medical help on board a war vessel might fail in time of action from want of space and proper security to exercise its functions. The treatment of the sick and wounded at sea is coeval with naval warfare, and its history divides itself into three periods. Thucydides (who died in 391 B.C.) and Herodotus (about B.C. 445) were probably the earliest historians of naval warfare. The former states that the engagement was one of man to man; the ships served only as the vehicles of this warlike force. Herodotus remarks that Duillius Nepos won the victory over the naval power of Carthage (B.C. 260) by grappling the enemy's ships to his own and boarding the Carthaginian ships with his legionaries, so that it became a man-with-man engagement. The second epoch of development in hostilities at sea began with the employment of artillery, which led to the destruction of the enemy's ship by shot. The third epoch commences with the introduction of steam, of iron-plated vessels, of rams, and of perfected cannon and shot. We are, however, interested in the medical aid obtainable during naval warfare.

Our first line of defence, our warships, is being supplemented, but no regard has yet been paid to affording necessary medical aid to those who may suffer when taking part in such defence. For some years past the Army Medical Department has received a considerable share of public attention and is ably aided by the promoters and members of the St. John Ambulance Association with its ever busy workers. The Naval Medical Department has no such adjuvant. This leads me to give a short notice of the "Red Cross" Societies, which afford the most noble example of the humanitarianism of this century. It is easy to fix the precise date of the origin of the Red Cross. This was the war in Italy in 1859. The "Hospitaller" orders were called into existence by the Crusades, and from time to time during certain wars the benevolence of private individuals induced them to found societies for succouring the sick and wounded. But no very deep traces of this spasmodic philanthropy remained, and the experience gained at various times was not available for subsequent generations. About 300 years ago a medical service attached to armies was regarded as a happy innovation and likely to be sufficient for every emergency, but this illusion was dearly paid for during the Crimean War (1853 to 1856). "Nevertheless, when the war in Lombardy broke out (1859) similar inefficiency was apparent, and cries of distress were again raised, which were emphasised by M. Henri Dunant's thrilling and heartrending description of the battlefield of Solferino. Hardly had three months elapsed after the publication of M. Henri Dunant's 'Souvenir de Solférino' before the suggestions it contained were discussed at a meeting of the Société Génevoise d'Utilité Publique." Feb. 9th, 1863, marks "the real starting-point of the Red Cross movement." A small committee of five members was appointed, but it was "not then known in Europe what prodigies had been accomplished in America by the Sanitary Commission of the United States during the War of Secession." To assist this committee in overcoming their early obstacles an International Conference was convoked and assembled in Geneva on Oct. 26th, 1863. Of Governments "Austria, Spain, France, Great Britain, the Netherlands, Prussia and six other German States, Sweden, and Switzerland took a direct part in this conference, whilst encouraging addresses were sent from Belgium, Denmark, Italy, Portugal, and some of the German principalities." In December, 1863, the first Red Cross Society was formed in Würtemberg by Dr. Hahn. From its first appearance the Red Cross has had many fervent apostles, of whom some belong to royal families. One of the most interesting points connected with the organisation of the Red Cross is the participation of women in the work. "That which is really international in the Red Cross Societies is the spirit which animates them, the sentiment of universal charity which forces them to hasten to any place where blood is flowing, and to feel equal sympathy for all the wounded whoever they may be," remarks G. Moynier.[3]

The hospital ship is to be regarded as an integral part of the fleet of war. It ought never to be wanting, and should accompany the fleet as the ambulance or the field hospital the army. As long as hospital ships and rafts are wanting the Naval Medical Service will be incomplete. Our work in warfare at sea consists not merely in tending the sick and wounded, but also in rescuing from an element whose strength it is above our power to control. The Red Cross Societies assist the Army Medical Service with men and material, and they should likewise supplement the Naval Medical Service. The aim of a Naval Ambulance Association such as I advocate must be to succour all during and after the battle, without regard to nationality, and to proceed with their rafts to the assistance of the crew. Directly after the battle they indicate by a signal that they are able and ready to receive the sick and wounded. The surgeons, nurses, helpers, and the *personnel* of these ships must be procured by the Aid Society through the local committee of the seaport where the hospital ship is to be fitted out, and placed under the direction of the chief surgeon of the fleet or squadron. It is necessary to establish a separate corps of surgeons, nurses, and helpers for the hospital ships' service at sea and to make them accustomed to the life on board ship. The peculiar nature of this field of work admits none inexperienced with life at sea without the risk of failure. Hence the importance of a naval ambulance association corresponding with the St. John Ambulance Association. Such *personnel* should be trained in times of peace; all that is regarded as requisite for the army is of no less consequence for the peculiar task at sea. It may be asked why not continue to meet our wants in the Naval Medical Service as we have hitherto done by hiring or renting from the large steamship companies some of their finest passenger steamers as required, and converting them into hospital ships? Two objections arise at once—such vessels are very costly in their conversion from one line of work into another, and they cannot be as efficient as a hospital ship arranged *ab initio* and built for the purpose. At the meeting of the Social Science Congress held in Birmingham during September, 1884, I first made public my views on hospital ships. At the meeting of the Hospitals Association in

[2] The Red Cross Alliance at Sea, by Dr. J. H. Ferguson, p. 13.

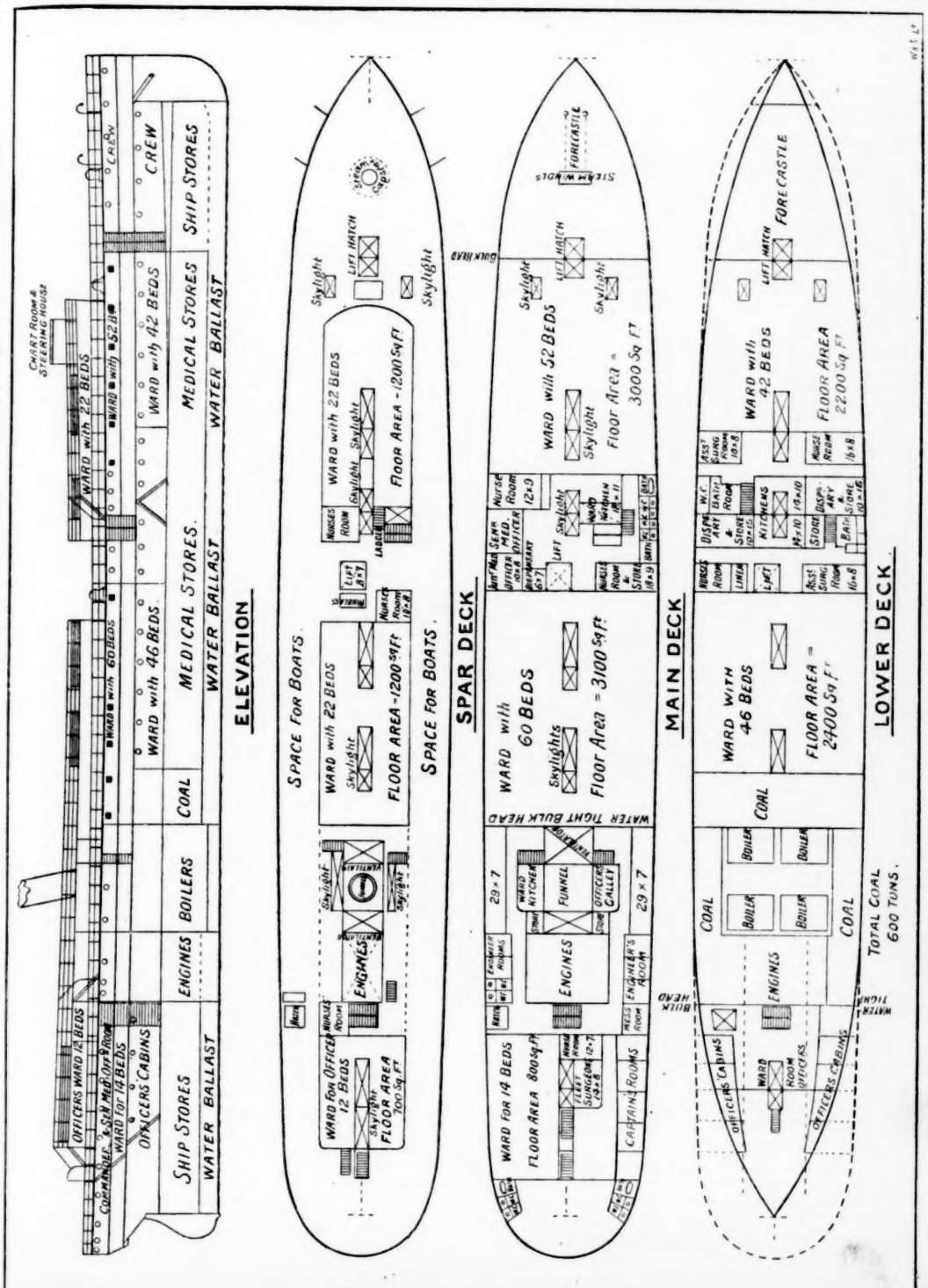
[3] The Red Cross, p. 32.

February, 1885, Sir Edmund Hay Currie in the chair, I read a paper on this subject. My plans were exhibited and received awards at several international exhibitions. They form a portion of my more extensive scheme for a naval ambulance association for the treatment of sick and wounded at sea. The Naval Medical Service as at present constituted serves no doubt excellently in times of peace, but there is no reserve force to meet at once a sudden call or any system of efficient nursing in connexion with our mercantile marine. The organisation of a naval ambulance association would remedy these defects, and why should not our mercantile marine have the advantage of such a scheme? It is well known and generally acknowledged by hospital staffs that their patients recover better when treated in a house specially arranged and built for the purpose. This holds equally true of the treatment of sick and wounded at sea. A passenger steamer converted into a hospital ship can *never* be equally efficient with a vessel arranged and built for this special purpose.

Plans for hospital ships.—The accompanying illustration is made according to scale, and represents one of two forms of steamers—the spar deck and the shade deck. At the first glance at my plan it will be observed that the primary consideration has been to arrange for the comfort and efficient tending of patients at sea. To obtain this speed has been sacrificed and the propelling power (the engines) has been placed well aft. Each form of ship affords accommodation for 250 sick and wounded and carries sufficient stores to build and equip a temporary shore hospital. In the next place, special attention has been paid to the principle so much approved of in the construction of modern hospitals on shore, namely, economy of space, labour, and time. The patients being congregated instead of segregated in twos and fours can be properly nursed by a competent person in a room next door or near of call and a surgeon is at hand instead of being on another deck. My original designs represent vessels of two different types but of similar dimensions—namely, length 325 feet, breadth 50 feet, depth 25 feet, tonnage 3722, displacement about 4100 tons. By hospital ships are meant sea-going vessels propelled by steam and specially constructed and adapted for the treatment of the sick and wounded. Whilst very great advance has been made during recent years, especially since the Crimean campaign and the civil war in America, in the treatment of wounds and accidents among our shore population and in the proper conveyance of such wounded persons to hospital, very little attention has been given to the comfort of patients treated "on board ship." Brigade-Surgeon-Lieutenant-Colonel G. J. H. Evatt, M.D., says: "It is absolutely essential at the outbreak of a war to have a definite plan ready in the War Office for the equipment of this class of vessels, and that their staff of attendants and interior economy should be completely understood." The steamers I suggest would serve as: (*a*) ambulance ships of any size, but in motion: (*b*) isolation ships, at anchor or in motion, for infectious cases; (*c*) stationary ships anchored off unhealthy coasts; and (*d*) convalescent ships moored near large towns receiving patients from them and then going off for a longer or shorter cruise. When not needed for hospital purposes these steamers would make excellent transport ships.

An ambulance hospital organisation.—It is desirable to have an organisation at sea analogous to that so wonderfully perfected during recent years for the care of sick and wounded persons on land. A division of labour (a law of nature) permits of more work being accomplished well. If the tending of the sick and the feeding of the healthy be looked after by the same individuals neither receives the undivided attention it requires. When conducted on a large scale the nursing of the sick should be separated from the commissariat department. The proper and efficient treatment and nursing of sick and wounded persons "on board ship" necessitates the arrangement not only of an efficient naval *medical* service, but also that of an equally efficient naval *nursing* service. The medical care (by nurses as well as by medical men) of sick and wounded persons on board ship should be managed by an organisation entirely independent of extraneous influences, educated to its special work, and devoting its entire energies to such work. Next, as to the abodes in which this work is to be carried on. A certain and smaller portion of it can be conducted on shore, but much the larger part forms a continuous routine, which must take place on board ship. To do so special arrangements are required. Not only must the service which performs this work be "on the spot," but there must be ready at command the necessaries for the work. Not only must the medical and nursing staff to attend on the sick and wounded on board ship be in proximity to the patients, but they must have at hand the various apparatus and conveniences they may require in their work. In the drawings exhibited these ends are met. The steamer sketched is so arranged that the comfort of the patients is the primary consideration. To meet this the propelling power (the engines) is located out of the way, as near as possible to the stern of the vessel; a lift, worked by steam power and admitting of two patients being lowered together in their beds, carries the patients on board the hospital ship or lowers them to the deck on which they are to lie, the best and largest portion of the steamer is arranged as wards; on each deck not only is the nurses' room in immediate proximity to the ward, but there are also one or more surgeons' rooms, a dispensary, a ward kitchen, laundry, and other necessaries. As compared with the *Victor Emanuel* my hospital ships differ by being arranged for a number of patients to be treated in one compartment and watched over by a nurse or nurses who, from living next to this compartment or ward, have a constant oversight of its inmates. The officers (both those sick and those in health) are accommodated in the best part of the vessel—the stern. Many details, including such important matters as ventilation, heating, lighting of the various cabins and wards, are purposely not arranged for until a steamer is built on the plan shown. My wish is to see steamers of larger and of lighter draught built on the principles here enunciated, and after the general type represented, and utilised for the treatment of sick and wounded persons at sea.

Spar deck and shade deck ships.—Each to a certain degree has special merits that the other has not, and each may be made available or adapted according to the requirements of the special service for which it is used. A "shade deck" vessel has the special feature that it affords the best means of lighting and ventilating the lower wards through continuous skylights arranged along the outside of the walls. One of the disadvantages of this plan is that the space occupied by these skylights contracts the cubic space and makes the wards on the deck above of a smaller size than they would otherwise be. This sacrifice of space is avoided in the plan which accompanies this paper, somewhat to the detriment of the ventilation of the lower wards, for this has to be obtained by means of openings or windows in the vessel's side which must necessarily be closed in bad weather. The plan shows the "spar-deck" vessel, which gives much greater deck area than the former and larger wards in the main or upper deck. These wards occupy the full width of the vessel and, like those on the lower deck, are fitted with ventilating shafts passing through them to the lower wards. In considering the relative merits of these two classes of steamers, if built entirely for service as hospital ships, the preference should be given to the one which affords the most advantages. In each instance ample accommodation can be provided for all the accessories and necessary rooms for servants, dispensaries, linen and food stores, laundry, suitable kitchens, and all the requisites for a complete service of attendance which are usually provided in modern shore hospitals, and these can be arranged in immediate proximity to the several wards. Complete isolation can also be obtained, because of the vessels being subdivided by entire water-tight partitions or iron bulkheads extending to the upper deck. It might be well that these should not have any doorways through them, such as are usually fitted in similar water-tight partitions. In the plan, owing to the removal of the long skylights, the wards in the upper deck occupy the full width of the ship, and consequently are much larger and more commodious than those afforded by the other type of vessel. The uppermost wards of all (those in the long-deck houses) are exposed to the open air and are pretty much the same in both types, affording about the same accommodation in each instance. But these vessels can be employed for totally different purposes from that of hospital ships in time of war: they can be utilised for the carrying of infantry troops, and in such service as this the vessel with the largest available deck area would afford the most advantages. These are found in steamers of the type of the plan given, and this is therefore recommended as being the best model for a hospital ship, both on account of the additional facilities that such steamers afford through their more commodious accommodation



Spar Deck Vessel. Principal dimensions: Length, 325 feet; breadth, 50 feet; and depth, 25 feet. Tonnage, 3722 tons (B.O.M.); displacement about 4100 tons.

and on account of a larger deck area in the eventuality of the vessel being utilised for the carrying of troops. The steamer depicted in the plan is of light draught and would be able to ascend most rivers, so that if war were raging at a seaboard or near a large river or lake one of these steamers could sail up to a spot nearest the seat of battle and receive any sick and wounded, whilst it could also convey the necessaries for erecting on shore a hospital to accommodate 300 patients. Some may argue that on board ship sufficient air space is not afforded and cannot be obtained for the treatment during a long space of time of sick and wounded persons. This argument is based on a comparison with the space required in shore hospitals. But it must be borne in mind that a steamer being constantly in motion a speedier and more continuous circulation of air takes place than through a like amount of space on land. Our knowledge of such matters is as yet incomplete; but in my designs there is represented twice as much cubic area (floor space) for each patient as is afforded each saloon passenger in a first-class passenger steamer. We have no gauge by which to calculate how many cubic feet of air each patient in a hospital ship should have, but taking superficial area as our guide this result is obtained.

BIBLIOGRAPHY.

1783: Governor Thos. Pownall, F.R.S., The Ships and Chariots of the Ancients. 1785: Julian D. le Roy, Les Navires des Anciens. Another on the same subject, 1785. 1859: Hospital transport; hospital steamships, *Mauritius* and *Melbourne*, equipped for service in China.—Army Medical Department Reports, London, vol. i., page 337. THE LANCET, April 6th, 1861, 1859: J. Tudor, *The hygienic condition of the *Dreadnought* hospital ship in the year 1857-1858, as exemplified by the result of surgical operations.—THE LANCET, April 9th, 1859. 1863: Hospital Transports, a Memoir on the Embarkation of the Sick and Wounded from the Peninsula of Virginia in the Summer of 1862. Compiled and published at the request of the Sanitary Commission. Boston: Ticknor and Fields. 1867: *The Abyssinian Hospital Ships.—Medical Times and Gazette, vol. ii., p. 319. 1867: *Dreadnought* Hospital Ship.—Medical Times and Gazette, vol. ii., p. 319. 1868: THE LANCET, Jan. 1868, p. 470, by Cockburn. 1868: Descriptive and Sanitary Report of the Hospital Ship *Queen of the South* (Abyssinian expedition), Army Medical Department, 1868, London, vol. viii. 1869: **Havadtryad*, the Hospital Ship.—THE LANCET, March 6th. 1869: Naval Hospitals, return to an order of the House of Commons for copy "of the Report of the Civil Commission appointed to inquire into the Condition and Organisation of the Naval Hospitals, with extracts from the appendices thereto," London. 1870: Moynier and Appia, Help for Sick and Wounded, published by John C. Hotten, London. 1871: *The Red Cross Alliance at Sea, J. H. Ferguson (formerly of the Netherlands Royal Navy). Crowned by the Central Committee of the Prussian Society of the Red Cross at Berlin, and edited for the benefit of the kindred aid societies in France and Germany. 1873: *THE LANCET, Nov. 22nd, Dec. 6th and 13th, H.M.S. *Victor Emanuel*.—THE LANCET, April 18th, 1874. 1873: *Floating Hospitals, THE LANCET, Sept. 20th. 1874: *The Floating Hospital and Invalliding Arrangements of the Ashanti War.—THE LANCET, Feb. 14th. 1874: **Victor Emanuel*, the hospital ship in Southampton Water.—Brit. Med. Jour., vol. i., p. 521. 1874: A. P. Ryder, The Fittings of H.M.S. *Victor Emanuel* as a hospital ship during the late Ashanti campaign, Junior Royal United Service Institute, London, vol. xviii. 1875: R. Barnes, the New York Floating Hospital for Sick Children, The Clinic, Cincinnatti, x., p. 151. 1875: T. M. Bleckley, Report on H.M.S. *Victor Emanuel*, Hospital Ship; Army Medical Department Report (1873), vol. xv., appendix. 1883: The Red Cross, by G. Moynier, published by Cassell and Co. 1889: La Croix Rouge de France, by Du Camp, Paris. 1881: *Outlines of Naval Hygiene, by Jn. D. Macdonald, M.D., F.R.S. ——: M. Henri Dunant, Un Souvenir de Solférino.

* Those works marked with an asterisk are the ones I have been able to consult.

Coleshill, Amersham, Bucks.

SOME CLINICAL REMARKS ON PNEUMONIA.[1]

BY J. EDWARD SQUIRE, M.D., M.R.C.P. LOND.,

PHYSICIAN, NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

THE latter part of the present century has so advanced our knowledge of the influence of bacteria on most pathological processes that a study of their relation to the more important pulmonary diseases claims special attention. The various parts taken by micrococci and by certain distinct kinds of bacilli and how far they share in the initiatory and sequential phenomena of the differing forms of inflammation of the lung have to be considered. Not only has the germ theory of disease given increased interest to pathological investigation and to experimental research, but it has resulted in larger and clearer views of etiology and has important bearings upon clinical medicine both in prognosis and therapeutics. In the latter sense I do not here refer to the attempts at treatment by bactericidal drugs; this is now in the actively empiric stage, but it is one thing to kill bacteria in a test-tube and another to destroy them in the body. In the study of disease causation by the light of our knowledge of morbific organisms two factors demand attention—the seed and the soil; not only must the micro-organism be studied, but the conditions under which it will flourish. This is well recognised by the bacteriologist in preparing his culture media, and to the clinical observer and practical physician the influence of the soil on the life and virulence of the disease-germ are of the greatest importance. The "personal" equation in medicine has received a new interest and an increased importance from the discovery of the association of bacteria with certain diseases. The influence of the "personal equation" in disease is no new discovery, but we may note in the present day a greater tendency than was formerly the rule to treat individuals rather than diseases. In pneumonia the influence of the personal factor is well seen. Inflammation of the lung in a healthy child is a very different matter from the same accident occurring in an adult of impaired or shattered constitution, even though the initial lesion were of less extent or intensity. It is this individuality of each case of pneumonia which, whilst it renders the disease exceptionally interesting to the clinician, makes the management of each case a matter of peculiar anxiety. I propose to go through my case-book and touch upon some points of interest which my experience has furnished.

Etiology.—It is now almost universally agreed that acute lobar pneumonia must be considered as a general, not merely a local, disease. And although there are difficulties in the way of fully accepting this view there are many features of the illness which give it strong support. The discovery by Friedländer and Fraenkel of the micro-organisms with which their names are now associated seemed to furnish the proof of the general nature of the illness. We must, however, remember that similar or identical organisms are associated with other diseases besides pneumonia and are to be found in the saliva in health, and probably exist in the lungs and other organs without producing ill-effects. When some local change in the tissues furnishes a suitable soil these micro-organisms develop rapidly and produce inflammation, whilst the toxic substances formed by them give rise to general symptoms. These local changes may be caused in various ways—for example, by traumatism or by chill—and they are more readily induced in organs of lowered vitality, whether this is permanent or temporary. Thus we find alcoholism predisposes to pneumonia, and that inflammation of the lung is a common accident in many illnesses where the general vitality of the tissues is impaired—e.g., typhoid fever and influenza. So, too, the fatigue consequent upon excessive exertion renders a chill more dangerous: the overdone competitor in a long distance bicycle ride finishing in a cold drizzle is more likely to get pneumonia than the spectator who has stood shivering to watch the result. It is a fact, sometimes imperfectly recognised, that over-fatigue is an important factor in the production of pneumonia. I have seen more than one case of pneumonia following a chill during the latter part of a long bicycle ride. The changes in the lung tissue which favour inflammation are probably the result of nerve influence which may originate at a distance from the affected organ. We know that in animals inflammation in the lung will result from injury to the vagus. The influence of chill to the surface of the body probably affects the lung by reflex nerve action. Such a result is perhaps most likely to ensue with exhausted nerve control, and pneumonia from chill is thus more prone to happen during fatigue. The pneumonia of alcoholism has been considered to be a trophic neurosis originating at the vagus centres, and possibly the poisons of enteric fever and influenza may act in a similar manner. On the other hand, the lung tissue may be directly damaged by local irritation. This may be mechanical, as from a blow, fractured ribs, or inhaled mineral particles, or the local irritation may in some cases be due to the toxic effects of micro-organisms. It may be that even local irritation produces its effects by reflex nerve action. These considerations may help us to understand the occurrence of pneumonia under such widely different conditions as traumatism and chill, or as a secondary result of disease.

Just as fatigue increases the risk from chill, so may the debility after an illness render a chill more dangerous. In the following case we have a good example of the effect of

[1] A paper read before the Harveian Society on Feb. 20th, 1896.

measles in predisposing to pneumonia from chill. A man aged about thirty-five years had an attack of measles, which went through its course without any noteworthy characters until the patient was sufficiently well to sit up in his bedroom for an hour or two during the day. Being so well he sent the nurse out for a walk and in her absence he took a bath, and then, without completely dressing, he threw open his window, although it was in March, and began to arrange some papers. That evening he had a rigor, and the temperature, which had been normal for some days, ran up. He had a sharp attack of pneumonia. The readiness with which convalescents from measles suffer—and often suffer severely—from chill, though well known to medical men, is imperfectly appreciated by others, and the large mortality after measles is due to the preventible complications and sequelæ. The case I have just mentioned is one of idiopathic pneumonia following after measles and is quite different from the pneumonia which occurs in measles as a part of the disease, coming on before the original fever has disappeared. The lungs are always affected to some extent in measles (as a part of the disease) and are liable to remain for a time in a condition which renders them a suitable soil for the development of any micro-organisms which may be present in these organs already or which may get to them from outside. Thus we find measles often an antecedent to pulmonary tuberculosis.

I have seen several cases of pneumonia associated with enteric fever and some of them have had this point of special interest—Was the pneumonia present the substantive disease and the actual cause of the illness or a complication not infrequent of enteric fever? The recognition of the signs of pneumonia has, in some cases which I have seen, been taken to explain the illness and so misled as to the true nature of the case. Whenever in obscure cases signs of pneumonia are detected it is important to consider whether the condition of the lung will sufficiently explain the course of the illness as well as the existing symptoms. As a good instance of the importance of this I may refer to a case I saw recently in consultation. I was asked to see a boy aged about eleven or twelve years because pneumonia had been diagnosed. On examination there was no doubt as to the presence of pneumonic patches in both lungs, especially the right, but the lung trouble did not seem to me sufficiently intense to explain the serious condition in which the boy obviously was at that time. Further examination disclosed pericarditis with effusion. Pericarditis may complicate pneumonia, but here on further inquiry I was led to a diagnosis of acute rheumatism, which the further course of the illness seemed to justify. The boy recovered, but with an endocardial murmur, which has now, after three months, almost disappeared.

The pneumonia of influenza presents some peculiar characteristics. The sputa may be rusty and the symptoms severe, but the physical signs are often obscure and the course of the disease unexpected. One marked peculiarity which I have noted is the tendency of the pneumonia to appear in some distant part of the lung or on the opposite side when resolving at the original seat. Here is a characteristic case. A young man about twenty-five years of age was seen in consultation in the country. On the right side of the chest the percussion note was "tubular" (high-pitched and sharp, with diminished resonance, but not dull) from the apex to the fourth rib, with tubular breathing. The rest of the right front was clear except for a few crepitations. The right back was dull almost all over. The left side was clear. Expectoration was very tenacious and had a slight brick-red colour, not typically pneumonic. The medical history showed that the pneumonia commenced at the right base, and as that resolved the apex became affected with another rise of temperature. This is quite different from what is found in typical acute pneumonia.

With reference to the influence of malaria on pneumonia, in my experience at Suakin in 1885 malaria was not a frequent cause of illness, except in those cases which have been called "typho-malarial," and which I believe to be dependent upon malarial poisoning. In these cases, as well as in some of the cases of enteric fever there, pneumonia occurred as a complication. A malarial pneumonia has been described, but Osler, with his large experience of malaria, says he has never yet met with a case of pneumonia which seemed to be in any way connected with paludism. The debility which is induced by a malarial attack may, however, predispose to pneumonia, as in the following case. A man aged thirty-three years arrived in England in April from the West Indies, where he had been for about five months, and had been eight weeks seriously ill with malarial fever. I saw him in consultation the day after he landed and found pneumonia affecting the right apex. When I saw him again, three weeks later, the chest was clear, the pneumonia having completely resolved. Tubercle had been suspected as the cause of the lung mischief, but no bacilli were found in the sputa, and the complete resolution within three weeks is in itself almost sufficient to confirm my opinion that the pneumonia was not due to tuberculosis. The patient recovered and still keeps well after nearly three years. Whether malarial fever predisposes to pneumonia or not, the cachexia left after severe malarial poisoning adds to the danger of a subsequent pneumonia. Some years ago I attended a man aged thirty-nine years during an acute attack of pneumonia, from which he died on the tenth day. The patient had served in the marines and had suffered from malaria. The illness with the pneumonic attack was very acute, the temperature was high, with delirium from the fifth day. In this case I believe the previous malarial poisoning had left him without power to resist any severe illness, for his age and habits were not unfavourable to recovery.

The foregoing remarks will emphasise the importance of the "soil," in addition to the causative bacteria, as a factor in pneumonia. There is this analogy between pneumonia and tuberculosis: in both a micro-organism is the essential cause, but the germ is harmless unless the soil is favourable to its development. The difference between the two diseases depends upon the different characteristics of the causative micro-organisms. The pneumococcus or pneumo-bacillus, developing rapidly, quickly produces its full effects, and sufficient toxines are formed to cause an acute illness and usually to poison the germs before they can become widely distributed. Thus we have a sharp but short illness usually terminating by crisis. The tubercle bacillus also produces a pneumonia, but develops slowly; the consequent small total output of toxines in the early disease leaves the blood-stream non-poisonous to the bacilli, and they are carried by it to other parts, where they set up fresh centres of disease. In pneumonia, as in tuberculosis, the various predisposing causes, such as cold, exhaustion, or debility, render the individual susceptible; the character of the "tissue soil" (to quote Osler[2]) has been so changed that the specific germ of either can grow and produce its ultimate effects.

Course and symptoms of pneumonia.—There is a very interesting point on which opinions are not unanimous—namely, whether there are cases which justify a diagnosis of acute congestion of the lung. The French consider active congestion of the lung to be a distinct disease (maladie de Woillez), but most authorities in this country consider the cases so described to be cases of pneumonia. Cases undoubtedly do occur, commencing suddenly with the symptoms which mark an attack of pneumonia, which either terminate fatally before the lungs become consolidated or which resolve without going through the ordinary course of pneumonia. Such cases may be termed "abortive pneumonia," and these are the cases to which the term "acute congestion of the lung" is sometimes applied. I select two of my cases bearing upon this point—one in a child, the other in an adult. A little girl aged four and a half years, who was said to have had congestion of the *left* lung the previous winter, was taken ill rather suddenly with feverish symptoms and slight cough. I found the temperature considerably raised and the base of the *right* lung dull. A mustard poultice was applied, and the next day the dulness had cleared and the temperature went down in two days. In the other case a woman past middle age, having just got over an illness of a few days' duration (supposed to be influenza), was found to have a return of fever with signs suggestive of pneumonia. When I saw her the next day the temperature was 101° F., and there was diminished resonance over the right base up to the angle of the scapula, with weakened breath sounds and fine crackling over the affected area. A mustard leaf was applied. I again saw her three days later. The temperature was down and the patient felt well. The right base was resonant, the breath sounds still somewhat weaker than on the left, but there were no crepitations. This was hardly a hypostatic congestion, for it was accompanied with a rise in temperature and the conditions which induce hypostatic congestion were absent. These two cases, though presenting different clinical phenomena, have this important characteristic in common—viz.,

[2] The Principles and Practice of Medicine, second edition, p. 547.

that in both the febrile illness was short and the consolidation of the lung was rapidly absorbed, whereas the consolidation of pneumonia usually takes some time to resolve after the febrile illness is over. In this sense they may both be described as "abortive" pneumonia.

The pathological conditions found in pneumonia may be referred to in explanation of such cases. These, as given by Dr. Douglas Powell, consist "first of an acute hyperæmia of the affected lung resulting in a fibrino-corpuscular exudation into the alveoli, sometimes including the smaller bronchioles and forming a film upon the pleural surface. This exudation, secondly, coagulating *in situ*, fixes the lung in a state of immovable expansion more densely solidified than it could be by any artificial injection with coagulable fluid."[3] The facility with which these exudations may be absorbed varies with the nature of the effusion and of the corpuscular elements and the degree of coagulation obtained. In the cases of which I have just been speaking the fluid exudation is presumably absorbed before coagulation takes place. We have thus only the first stage of the pneumonic process.

It is unnecessary here to describe the symptoms and course of an ordinary case of pneumonia, but I propose to mention one or two peculiarities or divergencies from the normal course which have come under my notice. We sometimes find that in cases of acute pneumonia the fever subsides gradually instead of by crisis, and it has seemed to me that this is more common in hospital practice than in cases seen at home. Possibly removal of the patient may have something to do with this. If a patient is taken to hospital when the disease is well established—say from the third day onwards—the febrile period becomes somewhat prolonged and the crisis is delayed or wanting. When consolidation of the lung has occurred resolution necessarily takes time, and in the most favourable cases is not complete until some days after the temperature has fallen. We meet with cases, however, in which this resolution is delayed for a considerable period, it may be several weeks or even months. I have notes of a case of a girl aged twelve years in whom resolution was not complete for nearly two months, but it may be delayed longer than this. Such cases may get absolutely well, as this girl did, the lung eventually clearing up completely. In other cases where resolution is delayed we find some further mischief, either as the cause or a result of the delay; for example, tubercle or pleuritic effusion or an abscess may form in the lung. I have in a previous paper[4] before the Harveian Society drawn attention to the risk of tuberculosis after pneumonia, especially in those cases where resolution has been long delayed. The pneumonic process nearly always leaves the lung in a condition favourable to the growth of germs which may subsequently reach the organ; thus we find that, unlike what is the rule in a general disease, one attack renders the person more liable to suffer again from pneumonia and predisposes also to phthisis. Some years ago I had a case of gangrene of the lung following pneumonia,[5] and I have lately had an interesting case of pneumonia affecting the upper lobe of the left lung in which a pyo-thorax developed which was also localised in the upper portion of the left chest. The patient, a boy ten years of age, was one of three inmates of a school who developed pneumonia. In due course the crisis occurred in all, but whereas two of the boys had an uninterrupted convalescence the temperature of the third, after being down for a day or two, ran up again and showed the large diurnal range of septic fever. The left chest was immovable in respiration and quite dull on percussion. The boy had a tuberculous family history, and I took him into hospital to have him under observation. Being satisfied of the presence of fluid in the pleural cavity I got Mr. Watson Cheyne to open the chest. A large quantity of offensive pus was evacuated and the boy made a good recovery. I have had several cases of empyema following pneumonia, but this case of empyema localised at the apex is exceptional.

The case just quoted leads one on to refer to cases of apex pneumonia. Pneumonia affecting the apex of the lung is not necessarily more severe or more dangerous than inflammation occurring at the base. Cases of apex pneumonia are sufficiently common to make it unnecessary for me to quote instances here. One important point of interest in these cases is the difficulty of distinguishing between a simple pneumonia in this situation and tuberculosis. The apex of the lung being the most frequent seat of commencing tuberculosis we may be led to diagnose phthisis when we get consolidation of the apex without fully considering the history and physical signs. It is important also to remember that pneumonia may be induced by a patch of tubercle, the presence of which is not recognisable until the surrounding pneumonia subsides. I have elsewhere referred to cases illustrating this and other points in reference to the connexion between pneumonia and tuberculosis.[6]

With regard to the sputum in pneumonia, viscidity is perhaps a more general characteristic than the rusty colour. In catarrhal pneumonia the rusty colour is not infrequently absent, and it may be so in lobar pneumonia. On the other hand, I have seen the characteristic rusty sputum when careful examination failed to detect any dulness; here the pneumonic patch was probably deep-seated. The prune-juice expectoration, which is often a sign of danger, is not always so. The change from marked viscidity to a more liquid as well as darker sputum is more significant of danger than the deepened colour alone.

Diagnosis.—Theoretically the signs of pneumonia are sufficiently characteristic to be recognised easily and with certainty, but practically we find ourselves often obliged to weigh carefully all the evidences obtainable before we can give an opinion. I have mentioned the difficulty occasionally met with in deciding between tuberculosis and pneumonia, and I have on more than one occasion found a pleural effusion where pneumonia has been diagnosed. Pleurisy may follow pneumonia, and when the signs of pneumonia have been correctly recognised in the first place dulness on percussion at subsequent examination has been interpreted as indicating non-resolution when it was in reality caused by fluid. Careful auscultation should be practised throughout the course of a case to avoid such an error, and repeated testing of the vocal fremitus must not be omitted; but even with this care the mistake is not always avoidable. The dulness of hypostatic congestion or of œdema from heart or kidney disease and the dry crackle of emphysema may at first suggest the presence of pneumonia. But with the aid of the thermometer and consideration of the history and general symptoms there should be no difficulty in forming a correct opinion. The marked alteration in the pulse-respiration ratio—due to the quickening of the breathing out of proportion to the acceleration of the pulse till we may have one breath to every two pulsations instead of one to four—may often guide us to the detection of even a limited pneumonia. Finally, we have to remember the possibility that the pneumonia may be symptomatic of some disease—such as typhoid fever—requiring the fullest attention, or an accident of a tuberculosis which would modify prognosis.

Treatment.—I strongly advocate the stimulant treatment of pneumonia. We have here an illness which is of short duration but often of great severity, and recovery is almost certain if we can keep up the patient's strength till the fever is past. As most of us know by experience, exhaustion may come on so rapidly that if we wait until it shows itself treatment may be too late to counteract it. We may, however, do much to prevent this excessive exhaustion by commencing with stimulant treatment from the first. By stimulant treatment I do not mean necessarily or solely alcoholic treatment, though I consider alcohol one of our most important drugs in the treatment of pneumonia. A full supply of nourishment in suitable form is necessary as well as stimulant drugs, and good nursing is essential. In many cases the nurse is what the practitioner makes her; and if the medical man shows a knowledge of what good nursing means and gives minute instructions to the nurse, taking measures also to satisfy himself that his instructions are carried out, he will probably have little cause to complain of want of attention on the nurse's part. In severe cases I am in the habit of writing out a time-table for the nurse, stating not only the hour at which nourishment, stimulant, or medicine shall be given, but the nature and quantity of each to be administered on each occasion. I then expect the nurse to keep a diary which I may compare with my time-table at every visit. Whether it is ever allowable to cease giving a patient food, drink, or medicine on the grounds that it can do no good and only bothers the dying patient we need not now discuss. It is certainly never justifiable in a case of pneumonia. I can recall two

[3] Dr. Douglas Powell: Diseases of the Lungs, fourth edition, p. 221.
[4] Medical Press and Circular, April 20th, 1892.
[5] THE LANCET, July 20th, 1889.
[6] The Hygienic Prevention of Consumption. Charles Griffin and Co. 1893.

or three instances of recovery after a patient had been "given up" in which any relaxation of the details of nursing would have taken away the last hope. I cannot too strongly insist on this point.

Local applications over the affected portion of the lung are, in my opinion, very useful. Whether they exert any appreciable influence on the disease may be questioned, but they often ease the patient's discomfort and soothe him. I prefer a poultice as generally most comfortable to the patient, but ice-bags are also recommended. The inhalation of oxygen is often of service, especially when a large extent of lung is consolidated; and I have seen marked improvement in breathing and in general symptoms from placing a patient with high fever in a tepid bath, after which the patient dropped off into a quiet sleep. As to drugs, there is room for individual choice within a certain range, and symptoms will guide us in our selection. I have a liking for carbonate of ammonia, to which digitalis or strophanthus may be added if there is any danger of cardiac failure. A caution is to be observed as to the use of even simple aperients. Of course the patient must not be allowed to get up, and sudden danger may result from undue action of the bowels. An enema may be needed, and this means of giving both nutriment and alcoholic stimulant also must not be overlooked.

With regard to alcohol, I prefer to begin to use it early in small doses (two to four ounces in the twenty-four hours), and to increase the quantity on the first indication of increasing weakness. Many cases will complete their course without needing any increase of the initial amount, but I have known cases where the alcohol has had to be given in large amount for a day or two. I sometimes tell the nurse in serious cases that if exhaustion is great an extra half ounce of brandy should be given before calling the medical attendant. I well remember, when I was a house physician, a patient with double pneumonia who took about thirty ounces of brandy in one twenty-four hour period. The case was pronounced hopeless by the visiting physician, but I and the nurse decided that we would keep the patient alive over the crisis if it could be done by stimulant, and we succeeded. This experience coming so early in my medical career made a great impression on my mind. I believe there is no better stimulant for use in the exhaustion of pneumonia than alcohol; others I know prefer not to use alcohol at all, but if they are wise they make use of some other stimulant in such cases as the one to which I have just alluded. As I have already intimated, your pneumonic patient will probably recover if you can keep him alive over the tenth day. The personal equation has such a marked influence on the character of the disease that, though we may lay down some general principles for the treatment of pneumonia we must be guided as to details by the individual peculiarities in each case.

Harley-street, W.

THE

PROVISION OF ISOLATION HOSPITALS: A REPORT PRESENTED TO THE ESSEX COUNTY COUNCIL.

BY J. C. THRESH, M.B., CH.B. VICT., D.SC. LOND., D.P.H. CAMB.,

MEDICAL OFFICER TO THE ESSEX COUNTY COUNCIL, ETC.

IN the various districts which I have visited I have found that many members of the sanitary authorities hold very erroneous views on two important points—viz., the objects for which isolation hospitals are required and the character of the accommodation necessary. It will probably be well, therefore, if I briefly refer to both these subjects.

The most erroneous opinion held is that isolation hospitals are structures only required for use during the prevalence of an epidemic of some of the more serious infectious diseases, such as cholera, typhoid fever, small-pox, diphtheria, and possibly scarlet fever. It is quite true that these are the diseases most frequently isolated in hospitals of this character, but it is a fundamental error to suppose that they are only to be used when an extensive epidemic prevails. Their real use, their greatest use, is for isolating the odd cases of infectious disease which occur in all districts, cases which may have been imported from without or the origin of which cannot be certainly traced, but cases which if not promptly removed become foci from which epidemics start. If the important fact be once clearly grasped that isolation hospitals are intended to prevent rather than to arrest epidemics much misconception on certain other points will be prevented.

The second error to which I refer relates to the nature of the accommodation required and really arises out of the first. I have frequently heard it stated that as the hospital would only be occasionally used a permanent structure is not needed, that a wooden hut or tent which can be put up at one or two days' notice is all that is necessary to meet any emergency. On the other hand, the view is sometimes expressed that a permanent structure ought to be erected of such a size that it would afford accommodation for all the cases arising in a widespread epidemic. As usual, the truth lies between these extremes. Temporary structures such as those referred to are totally inadequate, whilst permanent hospitals capable of receiving all the patients in a widespread epidemic are totally unnecessary. Temporary hospitals are of little value for several reasons. 1. They are rarely erected until an epidemic rages and therefore do not fulfil the primary object of an isolation hospital. 2. They are never in actual readiness. Valuable time is lost in erecting the structure or in preparing it for occupation, obtaining nurses, &c. 3. When erected they are neither so commodious nor comfortable as properly equipped permanent hospitals. That such hospitals have, though very rarely, their uses will be seen shortly. A permanent hospital capable of receiving all the cases which may occur during an epidemic period is unnecessary because with a small permanent hospital and a proper administrative block the earliest cases notified can be isolated and epidemics will be of infrequent occurrence; in fact, small hospitals properly utilised would probably prevent nine-tenths or more of the epidemics which now occur. If notwithstanding early isolation an epidemic happens then temporary accommodation can be provided within the hospital grounds to meet the exceptional emergency. The only legitimate use for tents and wooden structures is to supplement the permanent buildings on those very rare occasions when they are inadequate for the requirements of the exceptional conditions.

There is a further question with reference to isolation hospitals well worthy of consideration, and that is whether it is better to have a few large hospitals throughout the county or a larger number of small ones. This question can be discussed from two points of view—efficiency and economy. I will not take up space by discussing this subject, but will simply state the conclusion I have myself arrived at after full consideration. I think that only under exceptional conditions is it advisable to have an isolation hospital serving more than one Poor-law union. Such an area usually includes one or more urban districts surrounded by a rural district. Where a town—i.e., an urban district—is surrounded by a rural district within the same union it will in probably all cases be desirable to have a hospital for their joint use. Such an arrangement will be of advantage both with regard to efficiency and economy, economy in first cost and economy in management. The number of beds necessary will vary in nearly every district, chiefly depending upon the degree to which the population is crowded on space and the extent to which overcrowding in cottages prevails. In thinly populated rural districts some considerable proportion of the cases of infectious disease which occur will not require removal; in the poorer quarters of towns and in populous villages nearly every case may have to be removed. Again, in the manufacturing towns, where there is a large proportion of children, more accommodation will be required than in agricultural towns, where there are fewer children. Speaking roughly and having regard to the special requirements of the county, in the urban districts the permanent provision should be one bed for every 1000 to 1500 of the population, and in the rural districts one bed for 2000 to 3000 of the population. In laying out the hospital grounds provision should be made for the erection of temporary structures should such ever be required to supplement the permanent accommodation.

There is one disease which has exceptional features and requires exceptional treatment. I refer to small-pox. The prevalence of no disease, excepting possibly cholera, causes greater alarm or more easily creates a panic, and yet it is one of the most controllable, if not the most easily controlled, infectious disease with which we in this country have to deal. Promptly isolate the sufferers and revaccinate all

persons who have to come near them and the disease will be effectually and at once stamped out. Unfortunately the infection of small-pox can be aerially conveyed to some considerable distance, but I am firmly convinced that this only occurs where a considerable number of patients are aggregated in one hospital. I do not think it would ever occur in our smaller hospitals, especially if the patients were treated in Berthon huts or properly constructed hospital tents.

It is of course desirable that provision should be made for treatment of two diseases, scarlet fever and diphtheria for instance, and for the separation of the sexes. For these purposes four wards will be required. As examples of hospitals which meet all the Local Government Board requirements the following may be cited:—Chelmsford Rural District: Hospital with two wards (five beds) and nurses' room, and caretaker's house with four bedrooms, two of which are used for isolation purposes. The cost of the buildings was £1000, of the disinfector and ambulance £100, and of sheds for same £100. Saffron Walden Urban and Rural Joint Hospital: Caretaker's house, hospital with two wards (four beds) and nurse's room, drainage, outbuildings, &c., cost £1200. The old hospital (a small farmhouse) adjoins the new premises and is used when more than one infectious disease is prevalent. Southend Urban District: The hospital here, which is approaching completion, has two ward blocks each accommodating about ten patients, administrative block, laundry, mortuary, disinfecting apparatus, &c. The estimated cost is for buildings £3700 and for furnishing £350. Three different diseases can be isolated and the sexes separated. Halstead Urban District: The hospital here is also approaching completion and resembles the one in the Chelmsford rural district. The administrative block is, however, larger and the whole more expensively built.

Other subjects, such as the equipment of hospitals, provision of ambulances, disinfecting apparatus, hospital management, &c., which require consideration, I shall report upon at an early date.

Chelmsford.

A CASE OF CARCINOMA OF THE UTERUS COMPLICATED BY PREGNANCY.

By R. M. LEITH, M.B., C.M. EDIN.,

LATE ASSISTANT DEMONSTRATOR OF PATHOLOGY, EDINBURGH SCHOOL OF MEDICINE.

THE following case presents several points of sufficient interest and rarity to warrant its publication.

A woman aged twenty-nine years, five months after her second confinement, was sent to Dr. Ramsay Smith on Feb. 28th, 1896, for gynæcological examination and opinion. The result of the examination is embodied in the following note: "Cervix uteri split in several directions and eroded; what remains of it is hard, nodular, and immovable, and covered with cauliflower excrescences; os patulous and its margins friable, the whole bleeding freely on touch. Possibly malignant disease and a case for hospital." The patient, however, refused to go to hospital, so she was received into Dr. Ramsay Smith's private Home on March 9th, where she came under my observation. Her condition on admission was as follows. In appearance she was a small spare woman, much emaciated, with flushed cheeks and poor appetite, but with no cachexia. She complained of severe gnawing pain over the sacral and lower lumbar regions, the pain sometimes shooting down the outside of the thighs. The pain was so constant as to render her almost helpless. According to her own statement the patient had been five years married. Her first labour, eighteen months ago, was lingering, and the child was stillborn. Her second confinement, five months ago, extended over a period of five days. The child (stillborn) was rather large. After the confinement she complained of pain, and as her medical attendant put off examining her she consulted another medical man, who sent her on to Dr. Ramsay Smith, as stated above. The nature of the condition as determined by the first examination was doubtful. In favour of malignant disease were the rapid emaciation, pain, hardness and immobility of the cervix, and infiltration of the vaginal vault. Against this were the comparative youth of the patient, the absence of menstruation and hæmorrhage, except at the examination described above, the absence of rectal and vesical symptoms, and the recent pregnancy, which was only the second. Metastasis and cachexia were both absent, but these conditions occur so seldom in cancer of the uterus that nothing could be argued from their absence. The family history was decidedly good, tuberculosis and cancer being absent from the record. Though the diagnosis was doubtful the indications for treatment were clear enough. If the condition was non-malignant then the proper treatment was to remove the excrescences and stitch the rents in the cervix. If the condition should turn out to be malignant then the only possible course, considering the nature of the case, was to remove as much as possible of the diseased tissue as a palliative measure. So, without further examination, Dr. Ramsay Smith operated the day after her admission. After a preliminary hypodermic injection of morphia and atropia the patient was chloroformed. All the diseased tissue was rapidly removed by help of the finger-nails and curette, leaving the uterus excavated in all directions. There was a good deal of bleeding and the smell of the tissue removed was most offensive. Altogether about four-fifths of the entire uterus were removed, and the cavity, after being swabbed thoroughly with iodised phenol, was packed with iodoform gauze. The after-treatment consisted of hot douches three times a day with permanganate of potassium and mild morphia suppositories. In a week the patient was able to be up, was comparatively free from pain, had become more cheerful, and was acquiring an appetite for food. Microscopic examination confirmed the diagnosis as determined at the operation—cancer. Some facts elicited subsequently make the history of the case more complete and interesting. Pain and slight bleeding had usually occurred on connexion before the last pregnancy, and this, with other circumstances, point to the great probability, if not certainty, that pregnancy had occurred after the uterus had become diseased. The first labour, eighteen months ago, had been tedious, and the child was stillborn, leading to the presumption that cancer had originated in a torn cervix after the confinement. In cases of cancer of the uterus inquiry as to the condition of the husband's penis often elicits the fact that smegma accumulates behind the glans and under the prepuce, and this was so in the present instance. The outstanding points of interest in this case are that pregnancy occurred in a young woman in a cancerous uterus and went on to term, the disease being unsuspected, and that the symptoms were so obscure and indefinite even when the disease had become so extensive as to render a radical operation hopeless. The lesson to be learned is that every patient who has a tedious labour should be examined some time after confinement, and that, though it is not necessary to operate on every case of torn cervix, it is desirable to operate on some.

Rhyl, North Wales.

HUNTERIAN SOCIETY.—A clinical meeting of this society was held at the London Institution on March 25th, the President being in the chair. Sir Hugh Beevor showed for Dr. Woods a case of Spasmodic Tremor in the right hand and forearm which had been treated by short hypnotic sleeps for about six weeks. Gradual recovery took place. He also showed another case of a man aged forty-three years who was successfully treated by the same means for localised headache and giddiness.—Dr. F. J. Smith showed a man the subject of Addison's disease treated by supra-renal extract twice daily. The pulse had improved and the vomiting was less.—Dr. Arthur Davies brought before the society a case of imperfect closure of the left upper eyelid in a patient who suffered from mitral regurgitation. Suggestions as to the cause of the imperfect closure of the eye were made by the President, Dr. F. J. Smith, Sir Hugh Beevor, Mr. Rawes, and Mr. Tubby.—Dr. Davies finally expressed his opinion that the cause of the apparent projection of the eye was spasm of the left orbitalis muscle.—Dr. Arnold Chaplin presented the case of a man aged forty-six years the subject of bronchiectasis of the lower lobe of the left lung. He was placed in a room eight feet in each of its dimensions and subjected to the vapour of creosote for from a half to one hour daily. After some weeks the following results were noticed. The temperature fell to normal, the fœtor of the breath was less, there was a decrease in the moist sounds of the chest, and the patient had gained 5 lb. in weight.—Sir Hugh Beevor, Dr. Davies, Dr. F. J. Smith, and Mr. Tubby joined in the discussion which followed, and Dr. Chaplin replied.—Dr. Glover Lyon showed a patient the subject of Extensive, Painful, Glandular Growths, probably due to lymphadenoma.—Dr. Davies inquired if bone marrow had been given.—In his reply Dr. Lyon stated that there was no anæmia present.

Clinical Notes:
MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF SEVERE HEAT-STROKE; RECOVERY.

BY P. J. ATKEY, M.R.C.S. ENG., L.R.C.P. LOND.,
SURGEON TO THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY.

As cases in which the temperature has risen over 108° F. and the patient has subsequently recovered are not often recorded, or at any rate well authenticated, I think the following will be of interest.

The patient, aged twenty years, of good physique, was a steward on board the Peninsular and Oriental steamship *Parramatta* and on his first voyage from England. He was quite well until the Red Sea was reached, where the heat became very trying and oppressive, although the temperature of the air in the shade did not exceed 90° F. He first came to me on July 21st, at 12 A.M., complaining of severe pains all over, but worst in the back, and of great weakness in the limbs. His temperature was then 102·5°, the skin was dry, and the pulse full and rapid. I gave him ten grains of phenacetin and sent him to lie down. He stated that he had not been directly in the sun and that except for feeling tired, which he put down to extra work, had felt quite well till half an hour previously. At 2 P.M. I was sent for, as he seemed much worse, and found him in his berth quite unconscious; his breathing was fast and shallow and the pulse was full and laboured. While making arrangements for moving him I took his temperature in the axilla and found it to be 108·2°. His eyes were wide open and staring, the pupils being slightly contracted and not acting to light. He was immediately put into a bath of iced water and at the same time ice was applied to the head. When put into the bath his respirations became deeper, though still fast, and his pulse quieter. After five minutes his temperature had fallen to 103·5°, and after being in eight minutes, his pulse getting bad, he was put in a blanket on a bed and a little brandy poured down his throat. His pulse was now 108, the temperature 103°, and the respirations quick and weak. A few minutes later he began to vomit and brought up a large amount of semi-digested food, after which the pulse and respiration both began to improve, and at 3 P.M.—i.e., one hour after I first saw him—his temperature was 102° and the pulse was 96. He continued like this till 8 P.M. with teeth firmly clenched, and he could not be made to take any fluid, being still quite unconscious, when he suddenly raised himself in bed and began to struggle, and soon afterwards swallowed a little milk. His temperature had since 4 o'clock kept between 100° and 100·8°. I now had him fed with a little milk occasionally and gave him seven grains of calomel. He continued quiet, apparently sleeping, with the pulse about 100 and the temperature from 99° to 100° till 3 A.M., when he regained consciousness and talked sensibly, recognising people. The calomel acted freely three times later in the morning, and during the day (July 22nd) his temperature varied between 99·2° and 99·8°, the pulse ranging between 80 and 84. On the 23rd his temperature was between 98·2° and 99·8° and the pulse between 80 and 90. On the 24th and 25th the maximum temperature was 98·8°. The patient had been doing well and complained of nothing except at times a slight frontal headache. He took his diet well, which consisted of slops. On the 27th the patient was up on deck for an hour and complained only of weakness. On Aug. 1st he returned to his ordinary duties and seemed quite well.

Having had a considerable number of cases of insolation under my care since I have been in the service of the Peninsular and Oriental Company I can say that they do exceedingly well on board ship, and as there is an unlimited supply of ice and every necessary immediately at hand have a better chance than they would have elsewhere. The rapid recovery and absence of sequelæ, so common after severe heat-stroke, are the most interesting points about the above case, and I should like to know what other similar cases have been recorded. Dr. Clennell Fenwick of St. Thomas's Hospital, and Mr. Gilmour, R.N., very kindly gave me every assistance, and were both present when the temperatures were taken.

Sydney, N.S.W.

A CARDIAC CURIOSITY.

BY J. REGINALD FULLER, M.B., B.S. DURH., M.R.C.S. ENG.,
LATE SENIOR RESIDENT MEDICAL OFFICER TO THE BIRMINGHAM CHILDREN'S HOSPITAL;
AND
F. R. GIBBS, M.R.C.S. ENG., L.R.C.P. LOND.

THE case about to be described is, perhaps, more interesting as a curiosity than as a contribution to medical literature, but the fact that a murmur of such intensity should occur in a subject whose actual cardiac disease causes so few inconvenient symptoms is sufficient excuse for the few notes here appended. The patient, a bright and intelligent school girl aged fifteen years, belongs to a family many members of which suffer either from phthisis or cardiac disease. Her personal history is good. She has never suffered from any serious ailment and has always enjoyed fair health. The cardiac mischief causes no other symptom than the fact that she easily gets "out of breath." The heart is not enlarged or dilated, there is a good first sound, followed immediately by a murmur and a low second sound. The murmur is mitral, and this is the interesting feature of the case, for it can be heard when the patient is fully dressed at a distance of twelve feet or more. It can also be heard when with the chest exposed she is placed three feet away from a closed door and the listener is at the same distance on the other side in the hall. As might be expected, the murmur varies somewhat in intensity from day to day, but it is only very rarely that it cannot be heard a foot away from the chest without the stethoscope. We believe this to be unique.

"LANDRY'S PARALYSIS FOLLOWING INFLUENZA."

BY J. C. BOWIE, M.B., C.M. ABERD.

A CASE somewhat similar to the one referred to in the annotation under the above heading in THE LANCET of Feb. 29th has come under my care; the type of influenza differs, as does also the severity of the subsequent paralysis.

The patient is a lad aged seventeen years who was exposed to wet on Jan. 15th, 1896. The next day he had an attack of influenza, marked by the sudden onset of feverishness, depression, cough, and a slight amount of soreness of the throat which lasted only for a day. From Jan. 19th to Feb. 1st he travelled a good deal by sea, and was several times exposed to cold in a small boat. On Feb 1st he made one of these voyages which lasted nine hours in an open boat, and in the evening was seized with great feebleness, especially of the lower extremities, with numbness of the feet; and vomiting occurred. A slight amount of pain was felt in the back and head. Loss of appetite accompanied the depression. The feebleness increased for two or three days, so that the body was affected generally and also the arms, the right side rather more so than the left. The grasp of both hands was weak. There was a difficulty of lying on the right side from a feeling of soreness—this lasted four weeks. The heart's action was slow and feeble, but otherwise natural. The temperature was subnormal; the knee-jerks were lost; there was no difficulty in swallowing; the speech was somewhat slower than natural, but this might only be due to depression. On the 10th the temperature was normal (98·6° F.), but otherwise the patient's condition was unchanged. Soreness was felt on kneading the muscles of the limbs. There was slight sensory impairment in the feet. From the 15th to the 24th the bowels became more inactive and refused to react to laxatives, and laterally became loaded. On the latter date injection by enema was resorted to, followed by a dose of croton oil, and since then no difficulty was experienced. About this time, also, the urine was longer retained and consequently more copious at a time, but no paralysis occurred. Gradual improvement in muscular power occurred during that time, being still more marked during the following week. Appetite was regained, and since then slow but gradual improvement has taken place. On March 18th the knee-jerks showed a slight reaction after a long period of latency. The patient on the 27th was able to stand, but feebleness of the limbs was still present, so that he was not able to stand for any length of time.

Clousta, by Bixter, Shetland.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

TWO CASES OF OBTURATOR HERNIA, ONE BILATERAL; REMARKS.

(Under the care of Mr. WILLIAM ANDERSON.)

OBTURATOR hernia is one of the rarities of surgical practice. Only one case appears in the surgical reports of St. Thomas's Hospital from 1870 down to the date of the two examples now related, and only thirty operations are known to have been performed in Europe down to the present day. Case 1 appears to be the only example reported of bilateral obturator hernia treated by operation. Case 2 illustrates the extreme difficulty in the way of diagnosis before operation in some examples, and it points strongly to the disastrous consequences of delay in calling for the assistance of the surgeon in obscure conditions of intestinal obstruction. There is little doubt that the patient's life would have been saved could the operation have been done a day earlier. For the notes of Case 1 we are indebted to Mr. E. H. Cobb and for those of Case 2 to Mr. Everett Millais.

CASE 1.—The patient, a woman aged seventy-one years showing the usual senile emaciation but of fair power and vitality, had been suffering for the last seven years from occasional attacks of intestinal obstruction, accompanied by pain on the inner side of the left thigh and some fulness in Scarpa's triangle; the symptoms disappearing at the end of a day or two and leaving no ill-effects. During the last two years a local prominence had been noticed below the groin. On Nov. 24th, 1895, symptoms of strangulation set in without obvious cause, and the patient was sent to St. Thomas's Hospital three days later. There were then signs of obstruction, indicated by constipation, vomiting, and prostration, and a tender swelling as large as a walnut was found over the position of the left obturator foramen, and complaint was made of pain radiating along the inner side of the thigh. The tumour was deeply placed on the inner side of the femoral sheath in a position a little below and internal to that of a femoral hernia; it was most visible when the thigh was extended, and most easily palpable when the limb was flexed, adducted and rotated outwards, and was then felt as a tense rounded mass irreducible and free from impulse on coughing. On examination per vaginam a slight fulness on the left side could be distinguished in the direction of the obturator canal. Nothing was observed on the right side. The condition was diagnosed as strangulated obturator hernia, and an operation was performed without delay. An incision about two and a half inches in length was made over the tumour, downwards from the level of Poupart's ligament for about two and a half inches on the inner side of the femoral sheath; the pectineus muscle was exposed and its fibres were separated and held aside with retractors, exposing what appeared to be the sac of a hernia about an inch and a half in diameter. This membrane was of a dull white and as thick as a sheet of stout parchment. It was incised, and beneath and somewhat adherent to it appeared the true peritoneal sac. This was laid open and after the escape of a little reddish serum a small knuckle of intestine was visible. It was deeply congested, but retained its lustre and was not adherent to the sac. Its neck could be traced into the obturator canal and appeared to be nipped below by a semilunar fibrous band in the position of the external obturator membrane. A director was then passed into the canal below the intestine for nearly an inch, and the constriction was divided for about a sixth of an inch in a downward and slightly inward direction with a bistoury. No hæmorrhage followed. The intestine, after a brief inspection, was then emptied and returned without difficulty. The sac was next isolated from the surrounding tissues and twisted, and a ligature was tied around it as far within the canal as possible. The thread having been cut and the superfluous portion of the sac removed, the stump was pushed well into the pelvic cavity and the wound was closed. In the course of the operation the pulsation of the obturator artery could be distinguished at the upper and inner part of the canal. The nature of the membrane covering the sac could not be determined. It appeared to be quite free from muscular fibres and detached from the pectineus muscle. The operation was well borne. All symptoms of obstruction disappeared and at the end of a week the wound was found to be healed. The patient regained strength rapidly, but complained from time to time of neuralgic pain along the course of the obturator nerve.

On Dec. 22nd, twenty-six days after admission, a hernia appeared on the opposite side, but vanished spontaneously at the end of a few hours. Four days later, however, it returned, in company with sickness and other signs of obstruction, with considerable prostration of strength. The tumour was almost identical in its size, position, and character with that on the left side, but was less tense and tender. A second operation was performed in the same manner as before. The sac was found beneath a thick fascial covering, as on the left side, and on opening it the exposed small intestine appeared almost uninjured and was reduced without further use of the knife. The sac was isolated and ligatured and the wound was closed. The progress was again favourable and the patient made a good recovery except for the appearance of a small sinus apparently due to suppuration around a stitch. The patient was fitted with a double truss, with fixed semi-elliptical pads each so adjusted that its straight edge lay over the pectineus muscle parallel to the femoral sheath.

CASE 2.—The patient, an emaciated woman of cachectic aspect, was admitted on Dec. 9th, 1895, with symptoms of intestinal obstruction. She was in a state of extreme prostration and the history was difficult to obtain. She said she had been suffering from constipation and abdominal pain for five years, with frequent diarrhœa and pain referred to the umbilicus and vulva; the motions were usually scybalous, and no blood had been seen in the stools. Five months ago the bowels were constipated for three weeks, but were at length relieved under purgative treatment. A week before coming to the hospital acute symptoms of obstruction set in and the vomited matters had a strong fæcal odour. On admission she was extremely prostrate. The abdomen was but moderately distended, and no tumour could be felt either at the hernial apertures or within the abdomen by rectal or vaginal examination. An immediate laparotomy was decided upon. The abdomen was opened and a long coil of contracted small intestine was exposed, but before this could be traced to the point of obstruction the pulse stopped and the patient died. It was noticed that a peritoneal pouch extended into the right obturator foramen large enough to admit the tip of the forefinger for about three-quarters of an inch, and it was thought probable that the seat of obstruction would be found in the opposite obturator canal. At the post-mortem examination a knuckle of small intestine was found strangulated in the left obturator canal, not reaching to the anterior opening. It was not gangrenous, and the constriction involved only about two-thirds of the circumference of the gut.

Remarks by Mr. ANDERSON.—The obturator canal has received inadequate attention in our anatomical text-books, but a most elaborate essay upon the Anatomy and Surgery of Obturator Hernia by Piqué and Poirier[1] almost exhausted the subject down to the date of the articles. This was preceded by an equally painstaking monograph by Englisch.[2] The obturator canal may easily be studied in the dissecting-room by a simple sagittal section through the pelvis at a point about an inch external to the pubic spine. From such a section the accompanying figure has been copied. A reference to it will show the canal as a passage about an inch in length, bounded in front[3] by the body of the pubic bone and behind by the

[1] Piqué et Poirier: Étude sur la Hernie Obturatrice. Revue de Chirurgie, 1891, Nos. 9 and 11, and 1892, No. 4.

[2] Josef Englisch: Über Hernia Obturatoria, Wien, 1891.

[3] This description implies that the pelvis is placed in the position of station (i.e., with the axis of the brim forming an angle of from 150° to 155°, with a vertical line falling upon the promontory of the sacrum). The plane of the obturator foramen is then seen to form an angle of about 30° with the horizontal, and the obturator canal lies behind the body of the pubic bone, and below it only to a slight extent at its femoral extremity.

external[4] and internal obturator membranes and muscles. In the female it is usually large enough to admit the little finger and becomes still larger when the soft structures undergo senile atrophy; in the male it is narrower. These peculiarities will explain the great relative frequency of the condition in women of advanced years. The direction of the canal is chiefly downwards, with an oblique inclination inwards and forwards, but towards its lower or crural end it curves forwards at an angle of about 45° with the horizontal. The nearly vertical direction of the inlet of course favours the occurrence of hernia when the other conditions are favourable. The posterior wall of the canal presents two branch passages, one (K) running backwards between the two obturator membranes, the other (I) downwards, traversing the fibres of the

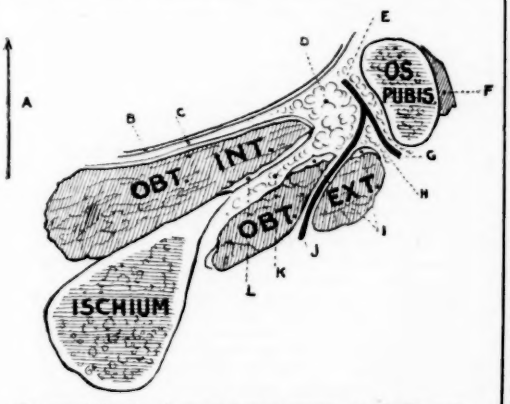


Diagram of the obturator canal, from a preparation in St. Thomas's Hospital. A, Longitudinal axis of body. B, Parietal peritoneum. C, Sub-peritoneal tissue. D, Fat in obturator canal continuous with C. E, Obturator nerve. F, Pectineus muscle. G, Anterior division of obturator nerve emerging from H, Lower (anterior) opening of canal. I, External obturator membrane of Fischer. J, Branch of canal transmitting posterior division of obturator nerve. K, Fat-containing space between the two obturator membranes (I and L). L, Internal obturator membrane.

obturator externus and transmitting the posterior division of the obturator nerve as well as some small collateral vessels. These diverticula are important to note because an obturator hernia may enter either. The canal is closed on the pelvic side by the parietal peritoneum, which is usually stretched more or less loosely across the inlet; and on the crural side by the pectineus and adductors. It transmits the obturator vessels (arteries, veins, and lymphatics) and nerve, and contains a mass of adipose tissue, which is continuous above with the subperitoneal plane of fat and sends processes into the space between the two membranes, and even through the canal for the posterior division of the obturator nerve. When this fat becomes absorbed during the senile involution of tissues, the parietal peritoneum is apt to be drawn or pushed into the pelvic orifice of the canal as a pouch of varying depth and width, and the way is thus prepared for a hernia. Such a condition was found on both sides in Case 2 and is occasionally met with in the dissecting-room. The course that may be followed by a hernia is obvious: (1) it may remain within the main canal and yet as in Case 2 may become fatally strangulated; (2) it may pass into the passage between the two obturator membranes and, as in the last, may lead to no appearance of a tumour in Scarpa's triangle; (3) it may enter the inter-muscular cleft for the posterior division of the obturator nerve and so reveal itself as a deeply placed tumour externally; or (4) lastly it may complete the transit of the canal and project beneath the pectineus as in Case 1, or if sufficiently large may wander wherever the inter-muscular spaces will permit. According to Fischer a hernia may also run outwards between the external obturator membrane and the cotyloid notch, but it is doubtful whether this variety, although possiole, has been demonstrated.

[4] The external obturator membrane of Fischer is a fairly strong plane of fibrous tissue attached in front to the lower border of the pubic bone and behind approaches the middle of the internal obturator membrane (the obturator membrane is over that body). The two membranes are separated by a space containing fat. See figure.

Practically we need only consider the varieties named, but it is possible, though scarcely profitable, to subject each to minute sub-division, as in the classification formulated by Englisch. The anatomy of the obturator vessels and nerve is well known. It is only necessary to note that the obturator artery, when it arises normally from the anterior trunk of the internal iliac, will enter the canal below the nerve, while if it spring from the deep epigastric it runs close to the anterior or bony wall, each arterial branch accompanied by large venæ comites. The relation of the obturator canal to the pelvic cavity will indicate the probabilities as to contents of the hernial sac. The small intestines are always in close relation, and hence in over 91 per cent. of the recorded cases it is a coil of gut or a portion of a coil that finds its way into the canal. Next in order of frequency come the ovaries and Fallopian tubes, about 4 per cent. The uterus appeared in the sac in one case and the vermiform appendix in one. The great omentum is seldom found. From the constitution of the canal strangulation is proportionately less common than in inguinal or femoral hernias, but the history of some of the examples, as in Case 1, shows that passing attacks of incarceration are not infrequent, while owing either to peristalsis set up by purgative treatment or to the effect of the distension of the proximal portion of the gut above the constriction, the intestine is drawn out and relief occurs without surgical intervention. The signs of strangulation do not always clearly indicate the locality of the mischief. They may be analysed as follows:—1. Obstruction of the bowels, with the ordinary symptoms of the condition. 2. An external tumour in Scarpa's triangle, below Poupart's ligament, beneath the pectineus, and on the inner side of the femoral ring. It is most visible when the limb is extended, and most easily palpable when the muscles are relaxed by flexion and internal rotation. It will, however, be absent when the hernia lies within the canal or between the obturator membranes, or may be difficult to detect even in the complete form if, as rarely happens, the patient is very fat. 3. Internal indications of tumour by vaginal or rectal examination, as found in Case 1. 4. Tenderness on firm pressure with the finger tip in the region of the external opening of the obturator canal may assist diagnosis when there is no palpable tumour. 5. Irritation of the obturator nerve commonly accompanies incarceration as well as strangulation. It is shown chiefly by a neuralgic pain extending along the inner side of the thigh, and even to the knee or lower, and sometimes by a sense of stiffness or cramp in the adductors. In some instances, as in Case 2, the characteristic indications localising the seat of obstruction may all be absent. As a rule, however, an intestinal obstruction of obscure origin in an old and emaciated female should always lead to a careful examination of the external opening of the obturator canal before abdominal section, and an exploration of the internal opening afterwards when laparotomy is performed. Thirty operations for the relief of strangulation have been recorded, including those now described. Of this number sixteen ended fatally. Laparotomy was performed in five. In the fatal cases twelve deaths were due to the injury to the gut (gangrene perforation) by the strangulation, and could hence scarcely be attributable to the operation. The method of kelotomy is usually that adopted in the case now reported. It offers no difficulty, and almost the only risk for which the surgeon is likely to be responsible is hæmorrhage from a wound of the obturator vessels—a dangerous complication owing to the difficulties opposed to the arrest of the bleeding by the depth and inaccessibility of the source. The artery usually lies opposite the upper and outer part of the sac (in Case 1 the pulsation was distinctly felt above and internally), and a section of the constricting band in connexion with the external or internal obturator membrane may usually be made with safety in a downward and slightly inward direction. The incision should, however, be as short as possible. It would, perhaps, be still safer to introduce a steel director or some other strong edgeless instrument beneath the neck of the hernial sac and widen the opening by forcible pressure in a downward direction. This would involve no risk and would probably be sufficient to allow reduction. An attempt at radical cure will, of course, always be made after reduction. It is doubtful whether anything is feasible beyond ligature of the neck of the sac as high as possible. When a kelotomy reveals a gangrenous state of intestine the problem is similar to that offered by the same condition in other herniæ. An attempt to excise the

gangrenous portion and to suture the two ends may not often be advisable; and probably the best practice, where the patient's condition permits, will be found in a laparotomy and the establishment of a lateral anastomosis between the two portions of the strangulated coil on the abdominal side of the canal. It is hardly necessary to press the advantages of promptitude when operation is found necessary. The mortality is that of delay, not of surgery. Taxis has been successful in a certain number of cases of strangulated obturator hernia, but in the present day this measure would be used with great caution if at all. Any persevering efforts at reduction by this means would be likely to increase the fatality of the condition.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Tuberculous Kidney.—Series of Cases of Enterectomy, with Remarks on the Various Methods Employed in Securing Union of Divided Edges of the Hollow Viscera.—Successful Suture of a Duodenal Ulcer.

AN ordinary meeting of this society took place on March 27th, Dr. BUZZARD, President, being in the chair.

Dr. F. J. SMITH and Mr. L. BIDWELL read the notes of a case of Tuberculous Kidney, for which nephrectomy was successfully performed.

Mr. MAYO ROBSON gave the details of a series of cases of Enterectomy, with Remarks on the Various Methods Employed in securing Union of Divided Edges of the Hollow Viscera. He remarked that the whole of his personal experience of enterectomy was furnished in the table of cases, twelve in number, which he handed round; and that by the kind permission of his colleagues he had been able to add the whole of the enterectomies which had been performed in the Leeds Infirmary to the table, which thus represented a series of twenty-six cases, on which his arguments were based. He divided the series into three classes. 1. Those operated on by simple suture, nine in number, of which five died, yielding a mortality of 55·5 per cent. 2. Those operated on by the Murphy button, five in number, of which one died, giving a rate of mortality of 20 per cent.; two had had fistulæ and a retarded convalescence, and in one the button had not passed while the patient was under observation. 3. Those in which a decalcified bone support in the shape of a button or some similar contrivance was employed to support the sutures, of which there were twelve cases with one death, giving a rate of mortality of 8·3 per cent. After remarking on the disadvantages attending simple suture, such as multiplicity of stitches required, the danger of stenosis, and the fear of infection through the needle punctures, and after mentioning the advantages of Maunsell's method in intussusception and its disadvantages in other forms of enterectomy, Mr. Robson referred to the use of the Murphy button, which he said he preferred for cholecystenterostomy and for short circuiting in intestinal obstruction, but which he thought had great disadvantages in enterectomy. He mentioned cases where the button had caused ulceration, where it had produced obstruction, and where it had never passed; he also dwelt on the necessary pressure-necrosis and the fear of gangrene spreading beyond the parts embraced, leading to perforative peritonitis, or in case of recovery to after-contraction in the newly-established fistula. Mr. Robson said that before all other methods he preferred to suture the intestine by a continuous stitch and to support the line of union by a hollow decalcified bone bobbin, the safety of which he thought he had proved by the list of cases given in the paper and by the rate of mortality being reduced so low as 8 per cent. The advantages he claimed were a saving of time from the use of only one or at most two stitches; the prevention of subsequent stricture by the establishment of a continuous mucous canal; the perfect security against leakage; the absence of a foreign body in the intestine, as the bone dissolved when its work was done; the prevention of infection of the line of suture; the immediate continuity of the newly-made canal; and, lastly, the applicability of the bobbin to any of the operations required for the establishment of continuity of the intestinal canal. After describing, by the aid of diagrams and models, the operation he generally adopted he said that though it might be more ideal to do without any mechanical aids in these operations it was incumbent on the surgeon to carefully study the advantages and disadvantages of the different procedures before adopting any method because it was supposed to be the ideal one.—Mr. B. JESSETT expressed his regret that Mr. Robson had not alluded to Senn's papers on uniting the intestine by bone plates, the experiments establishing the utility of which were first repeated by himself in this country. Mr. Paul of Liverpool was the first to make a definite improvement upon Senn's method, then followed Maunsell's operation, which was one of the best. Murphy's button looked simple, but required delicate manipulation for successful application; if the button dropped back into the stomach it might prove the cause of ulceration and perforation later on. Of five cases he had adopted Maunsell's method in three and that of Robson in two. They had all recovered except one of excision of a portion of transverse colon for cancer by Maunsell's method. In one instance he had performed both Maunsell's and Robson's operations for two different fæcal fistulæ on the same patient, and both with a successful result.—Mr. W. G. SPENCER said that Czerny of Heidelberg had published an equally good series; the suture employed being practically the same but no bobbin being used. He inquired if Mr. Robson had used a potato or turnip out of which to fashion a bobbin; also whether he had used the bobbin with success on parts of the intestine incompletely covered or not covered with peritoneum.—Mr. H. ALLINGHAM referred to his paper before the Medical Society of London in which he related the fatal results which had followed the operation if the gut were distended at the time. He was sure that the use of some form of internal splint was of great assistance to the operator. At St. George's Hospital every time Murphy's button had been used the patient had died.—Mr. F. BURGHARD said that he had operated twice by Maunsell's method and four times with Murphy's button. He resected the cæcum for malignant growth about the ileo-cæcal valve and united by means of Maunsell's method, the patient being at the present time living and well two and three-quarter years after the operation. In a case of malignant disease about the beginning of the sigmoid flexure the patient died of perforation on the eleventh day. In that case there was no mesentery and he found it extremely difficult to carry out Maunsell's invagination. In two of his cases in which he used Murphy's button the patients died almost immediately of shock, and therefore the result of the use of the button could not be ascertained. In a case of pylorectomy the patient did well, though he died from recurrence seven and a half months after the operation. The operation was completed by the aid of the button in forty-five minutes and the button was passed on the thirty-fifth day. In the case of malignant disease of the descending colon Murphy's button was used and the patient did well being at the present time alive and with no recurrence.—Mr. BOWLBY remarked that Maunsell's operation was easy of performance upon undistended intestine, but he had tried it in a case of gangrenous hernia and found that it was extremely difficult to invaginate the gut. The patient died from peritonitis, from leakage at the stitch holes, and the lumen of the gut he found afterwards was almost occluded by the in-turned portions of the coats of the bowel. The free passage ensured for the immediate transit of fæces and flatus was not one of the least important merits of Mr. Robson's plan.—Mr. CLUTTON asked if Mr. Robson had considered the advantages of lateral anastomosis. In his own hands it had been eminently successful. He had also found that Murphy's button gave good results, its chief cause of failure appearing to be that it did not pass. In end-to-end approximation of gut he had had successes, but he had also had a large number of failures.—Mr. MAYO ROBSON, in reply, said that his paper only alluded to personal experiences and hence he had said but little of Senn's plates. Maunsell's method was excellent for intussusception, and he would like to remark that his colleague, the late Mr. McGill, suggested the details of this operation years before Maunsell brought it out. The outer line of suture should be passed through the outer coats of the bowel only, whether peritoneum or not. He agreed that there was danger in operating upon distended intestine, but in many cases there was great objection to an artificial anus, especially where the opening had to be made into the small

bowel. The disadvantage of lateral anastomosis was that it gave three lines to suture up instead of one. He had suggested to Dr. Murphy that the distal flange of the button should be made larger, so as to prevent it travelling into the stomach or proximal part of the gut.

Mr. L. A. DUNN read notes of a case of Successful Suture of a Duodenal Ulcer. The patient whilst at work felt a sudden pain in the epigastrium, attended with nausea and faintness. He was taken home and subsequently to Guy's Hospital on Aug. 2nd, 1895. The abdomen was distended and remarkably tympanitic. The normal hepatic dulness was absent. He was suffering great pain and had an anxious expression of countenance. The abdomen was opened by median incision above the umbilicus, which allowed of the escape of a quantity of gas and yellowish fluid. A small perforation was found in the anterior wall of the first part of the duodenum. This was closed with five silk Lembert sutures and the abdominal cavity flushed out with boiled water. The flushing process interfered with respiration and so could not be thoroughly carried out, hence a Keith's tube was put into the upper parts of the wound for the first twenty-four hours. The patient progressed well for ten days, when his pain returned and his temperature was raised. He became worse till Aug. 27th, when the abdomen was opened a second time, on this occasion along the right costal margin, as it was thought that a collection of pus had formed between the liver and the diaphragm. Nothing was discovered except a few adhesions in this region, chiefly beyond the reach of the finger. An exploring needle passed through the eighth intercostal space was felt to traverse the abdomen and perforate these adhesions. A drop of pus was evacuated by this method. The wound was closed, the intention being to open and drain the abscess through the thorax at a later date. This was not, however, required as the temperature fell immediately after the operation, and remained low till the sixth day, when the wound was found to be distended with pus. The removal of two sutures sufficed to evacuate this, after which the recovery was rapid.—Mr. BLAND SUTTON said that some years ago he was interested in the subject of duodenal ulcers and looked up the cases. They occurred mostly in males past mid-life, and they had, he was sure, a different pathology from the gastric ulcers of chlorotic girls. They appeared to occur generally in subjects addicted to ardent spirits. The proper temperature to flush out the abdomen was 110° to 115° F.; if water colder than that were used shock would be induced, particularly in flushing out the upper regions of the abdomen.—Mr. DUNN, in reply, said that he had often used water at the temperature of 100° F. to flush out the abdomen, but he had never before seen such an effect produced on the respiration.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.

Some Factors in our Atmospheric Environment and their Relation to Health.—Modern Improvements in British Balneological Practice.

AN ordinary meeting of this society was held on March 4th at Limmer's Hotel, Dr. HENRY LEWIS, the President, being in the chair.

Dr. HENRY MCCLURE (Cromer) read a paper on Some Factors in our Atmospheric Environment and their Relation to Health, dealing with the composition of the atmosphere, its temperature, movements, and other conditions, and the phenomena produced by electricity and sudden changes of weather in human beings. He finally spoke of sunlight, its action on bacteria, and the probability that the ultra-violet rays penetrate below the surface of the skin. He believed that sunlight had a bactericidal effect due to the ultra-violet rays.

Dr. DOUGLAS KERR (Bath) then read a paper on Modern Improvements in British Balneological Practice. After stating that the application of water in the form of baths as a hygienic measure had been recommended for many ages, he discussed the origin of springs, the cause of their occasional high temperature, and the inherent property peculiar to each spring independently of its chemical composition, so that in selecting any one spa for any particular disease a medical man should be guided not so much by the mineral ingredients contained, unless present in very large amount, but by the combination of ingredients, and especially gaseous constituents, by the general character of the water as regards hardness or softness, by its effect on the system generally, and, above all, by the recorded evidence of credible witnesses as to its power in effecting cures. On the Continent for at least half a century thermal treatment had been steadily improved by scientific modes of application and had been recognised as an efficient treatment for some diseases which were not very amenable to drugs, while till within the past few years the English watering-places had been trusting to the obsolete modes of bathing handed down from former generations. Happily, all this was now changed, for at several English health resorts arrangements have already been or are being made for providing facilities for special treatment on the lines adopted at Aix-les-Bains and other Continental spas. He described various details and finally spoke of the Nauheim treatment as being carried on at various British spas.—Dr. MYRTLE (Harrogate) confirmed what Dr. Kerr had said about the immense improvements that had taken place with respect to baths in this country. At Harrogate they now had baths of almost every kind and all the arrangements were excellent.—Dr. GIFFORD BENNET (Buxton) said that during the twenty-seven years he had been physician to the Devonshire Hospital he could not remember a single fatal case occurring there during the whole of these years from the use of the baths. The only reason he could give was that every case received into the hospital was thoroughly and carefully examined. Some of the other cases who did not go from the hospital were examined, but on the other hand a large number went to the baths without any such preliminary precaution. They came to Buxton as to other spas, thinking that it was an ordinary water, and then plunged in, the consequence being that in some cases death took place.—Dr. EARDLEY-WILMOT (Leamington) considered that patients should be placed under the care of a medical man at the health resorts to which they were sent. He had known serious results happen to people who took these baths without this precaution and sometimes even without consulting a medical man in their own neighbourhood.—Mr. HOLBECHE (Malvern) said he had come to that meeting specially to get some authoritative opinion with regard to the Nauheim treatment of heart complaints by balneotherapy. He could understand that the action of a hot bath and movement of the muscles might, by producing "fluxionary hyperæmia," relieve congestion of the right side of the heart; but he could not understand how reflex action of the skin or absorption of carbonic acid gas by the pores of the skin could be of any practical value in the treatment of heart complaints.—Dr. SNOW said that on this question of the treatment of the heart by this method he felt bound at the present time to take up a neutral position. Sufficient facts had not been put before them by independent observers to show the benefits which Dr. Bezly Thorne and others had mentioned as following that treatment.—Dr. LOUIS BLANC (Aix-les-Bains), speaking at the invitation of the President, expressed his pleasure at hearing of the reputation of the British baths. Many improvements had now been introduced in them, as he could personally testify from recent visits to Buxton and Harrogate. The practice of massage and the different methods of douching had special actions on the body, as in the treatment of rheumatism, but the waters themselves had something to do with the result apart from special appliances. Patients who went to these baths had often undergone massage and other treatment in London, Paris, and other large towns, where good accommodation and every convenience and modern improvements were to be had, but the effect produced had been but slight compared with that obtained at the mineral spas.—Dr. SEPTIMUS SUNDERLAND regretted that the details of the different modern improvements had not been gone into more fully. The rapidity with which the Nauheim treatment seemed to have taken hold of the profession upon very slender evidence reminded him of the Koch lymph craze a few years ago. He himself had no experience of the treatment, and while among the cases of which he had heard there had been some excellent results two had been disastrous.—Mr. SHIRLEY JONES (Droitwich) said that they had tried the Nauheim treatment on a few cases at Droitwich, but he was not in a position to specify definite results. He could not say whether it would or would not prove a success, and he considered that it would be premature to make any definite arrangements for it.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

The Better Regulation of the Out-Patient Department.

A MEETING of this society was held on March 18th, Dr. W. B. RANSOM being in the chair.

Dr. KINGDON, in a paper on the Better Regulation of the Out-Patient Department, advocated the adoption of a uniform system of enumerating the total number of out-patients at each hospital. For instance, the same person on obtaining a fresh recommendation was often counted as a "fresh case." Patients coming from the country should be distinguished from those belonging to the town. Reference was made to the great variation in the number of patients in different towns where similar causes might be supposed to operate. Among the causes of the evil arising from unsuitable applications for treatment the recommendation system was specially condemned as favouring that which it was intended to avert. The Hospital Saturday and Sunday organisations, together with the fact of out-patients being prescribed for by an honorary staff, tended to increase the number of out-patients. The failure of the attempts made in different towns by committees of inquiry to reform the out-patient department was ascribed to too much having been attempted, and to the recommendations being overburdened with suggestions as to the formation of provident institutions and the like. It was suggested that suitable applicants were: 1. Those whose wages and that of the family were below a fixed standard. 2. Those whose wages exceeded the standard, but who had already paid a private medical man as long as they could afford. Both these classes were entitled to continuous attendance. 3. Those frequenting the hospital as a public consulting-room—e.g., members of sick clubs or those referred by a medical man. These should be seen once and the written opinion of the consultant forwarded to the medical attendant. The abolition of the recommendation system was advocated, also that the onus of proving their suitability should be placed on the applicants themselves; that each hospital should appoint an inquiry officer, male or female, who would interrogate each patient from printed questions; and that the answers should be written down by the officer and signed by the patient, and a distinguishing mark placed upon the prescription paper before the patient was seen by the medical staff. All unsuitable applicants should be at once rejected by the inquiry officer.

Dr. BOLTON thought public dispensaries unnecessary; the poor should be medically treated either by hospitals or the parish.

Further observations were made by Dr. RANSOM, Mr. MACMILLAN, Dr. WATSON, Mr. PRYCE, Mr. LANDER, Mr. STEPHENS, Mr. WILLIAMS, and Dr. MUTCH.

LIVERPOOL MEDICAL INSTITUTION.

Roentgen's Radiography.

A MEETING of this society was held on March 26th, Dr. RICHARD CATON, President, being in the chair.

Professor OLIVER LODGE (on the invitation of the President) gave a most interesting lecture on the Roentgen Radiography and its application to Medicine. He first traced the history of the subject previously to the discovery of Roentgen, calling attention to the researches of Crookes, Hertz, and Lenard, describing their methods and the extent to which their researches reached. He illustrated this part of the lecture by showing their instruments and repeating their experiments. He then explained the theory of the production of the rays and said that there were three different forms of rays proceeding from the kathode; each of these rays had its special properties. He then exhibited a screen prepared by Dr. Kohn with potassium tungstate. By means of a focus tube and a very powerful coil he projected on this screen shadowgrams of various objects, which were clearly seen by the audience. The objects consisted of a number of instruments in a wooden case, the hand and elbow joint of an assistant, and many more. With a magic-lantern he then showed upon a screen Radiographs of a sprained wrist, a dislocated thumb, a needle in a hand, and many other interesting pictures. Some excellent radiographs were handed round for members to examine; amongst the most interesting were a representation of the spine of a young woman who had sustained a fracture of the spine by falling out of a window, and one of a Murphy's button which had been retained for a long time in the abdomen of a women on whom an operation had been performed, the button having never come away. The position of the button was well seen.

A cordial vote of thanks was accorded to Professor Lodge for his kindness in giving the lecture, after which the meeting terminated.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

Exhibition of Cases and Specimens.

THE closing meeting of the present session of this society was held on March 12th in the Royal Infirmary, Newcastle-upon-Tyne, Dr. J. DRUMMOND, the President, being in the chair.

Dr. OLIVER and Mr. WILLIAMSON showed a youth aged seventeen years who had on three occasions hurt his head, one of the resulting scars being above the right ear opposite the face centre. For two years he had frequent attacks of *petit mal* and then a distinct epileptic convulsion preceded by severe headache. After admission to the infirmary he was delirious and had fits during the night. Double optic neuritis passing into atrophy was present. The fits always commenced on the left side of the face, passed to the left arm, then to the corresponding leg, and finally became general. A small hole was drilled over the face centre with the brace and bit trephine, and the skull was chipped away with cutting forceps over the motor area, but nothing was found, and though surgically the case did well the result was negative so far as the fits and the mental condition were concerned.

Mr. PAGE showed six men who had been operated on during the past year for Internal Derangement of the Knee-joint. In all the cases except one the result was perfect, for a freely movable, strong, and painless joint had resulted. The unsuccessful case was in a patient fifty years of age suffering from rheumatoid arthritis of the joint, which was opened and partially "erased" in the hope of benefiting him. He was no better and no worse for the operation. In each of the five successful cases the internal semilunar cartilage was excised through a transverse cut over it on the inner side of the knee, and in every case the wound healed by first intention.

Dr. DAVID DRUMMOND showed two men (miners) suffering from Leukæmia. One was fifty-four years of age and was first admitted into the infirmary in January, 1895, six weeks before which date he noticed himself becoming weak, breathless, and pale, and shortly before admission he discovered a swelling in his abdomen. His spleen was much enlarged, his legs were swollen, and his blood showed one white to six red corpuscles. There was a large amount of white uric acid in his urine, and a cardiac systolic murmur in the mitral area. He improved in general condition under arsenic, his blood at last contained one white corpuscle to 7·03 red corpuscles, and he was discharged. Seven months later he was readmitted, and his spleen then filled the left hypochondrium and reached to the umbilicus. His blood at present contains one white corpuscle to 4·7 red. The second patient was a man aged forty-five years whose spleen was large and whose blood contained one white corpuscle to four red corpuscles. An examination of the serum from the swollen legs of both men showed the presence of a large number of white cells (leucocytes) which were not found in the serum in heart or kidney cases. So far as Dr. Drummond knew this observation had not been made before. Both of these cases were examples of the spleno-medullary form of leukæmia, and the so-called myelocytes of Ehrlich (i.e., large uninucleated neutrophiles), the presence of which alone proves this form of leukæmia, were demonstrated.

Dr. GEORGE MURRAY showed a man, forty years of age, suffering from Hodgkin's Disease. When fourteen years old he first noticed that two of the lymphatic glands in his left axilla were enlarged and they have remained unaltered. A year ago the inguinal glands were noticed to be similarly affected, and a swelling was discovered two months later in the left side of the abdomen. Six months ago the enlarged inguinal glands softened, increased in size, and yielded a discharge for a time. Two months ago he noticed his skin

darken. With the exception of some weakness he has felt nothing wrong. The inguinal glands now form tumours the size of cocoa-nuts, but the sinuses are healed. The axillary and cervical glands are large and hard, the spleen is much enlarged, and a nodule the size of a billiard ball can be felt immediately below its notch (probably a lymphadenomatous growth). In the blood there is one white corpuscle to 200 red corpuscles. Arsenic had not materially benefited him.

Dr. HUME exhibited a patient who had recovered from an operation for an abdominal tumour which proved to be a Lymphangioma of the Mesentery, and another on whom a successful operation had been performed for Intussusception with protrusion of the ileo-colic valve through the anus. He also gave a description of seven cases under his care now convalescent after operations for Appendicitis, and showed a man who had suffered from Free Internal Hæmorrhage, arrested after drainage and constant pumping. The patient had fallen from a height of thirty feet. At first his symptoms were not urgent, but at the end of twenty-four hours his abdomen was swollen and tense with fluid and he vomited everything. An incision was made in the right linea semilunaris and the peritoneum and pelvis were found full of blood, which was washed out, but search failed to reveal the bleeding point. A drainage-tube was left in and pumped out every half hour. Fresh bleeding followed the operation, but gradually ceased, and the patient made a perfect recovery.

Reviews and Notices of Books.

Mental Physiology, especially in its Relation to Mental Disorders. By THEO. B. HYSLOP, M.D. Edin. Pp. 552, one vol. London: J. & A. Churchill.

THIS work is, as its title indicates, intended especially for candidates for the M.D. at the University of London, but it is not merely a text-book, for the author takes a strong position of his own on many of the points which are still discussed on this very debatable ground. It is evident that a vast number of authors have been consulted and in most particulars the work is quite up to date. That it completely fulfils its object can scarcely be said. It is, indeed, difficult to see how one book can in such a subject be successful, for the many views held as to the nature of matter, the explanations ventured as to modes of brain action, theories as to the connexion between mind and brain, &c., are studies in themselves that can only be grasped by prolonged consideration, and, therefore, we think that whilst Dr. Hyslop's book is of considerable value to the teacher who wants to summarise his knowledge it will be found too concentrated for the student, there is in it too much pemmican for the imperfectly (in this subject) trained organs of the ordinary candidate. Mental philosophy is of all subjects the one that requires gradual elaboration, and to be suddenly thrown into the thick of abstruse and conflicting theories is to say the least confusing, and though Dr. Hyslop evidently sees this difficulty and endeavours to clear up the speculation by a dictum here and there, the process is not always to be readily seen through by the student. It is doubtful if complete success in the production of one single volume embracing the necessary psychological training with the adjustment of this to insane conditions is possible, because in the face of the new physical experiments that are constantly appearing changes of opinion and varying theories are started which compel a review of the subject from another point, showing upon what an uncertain basis our inferences as to psychological processes rest. We prefer to advise the student to ground himself in the terminology and nomenclature of the subject, to study a good text-book on psychology, and hand in hand with this to get the practical experience of an asylum. Only in this way can he have a sound knowledge of a subject which the majority of candidates look upon as a bore, a thing to be got up for a special purpose and afterwards thrown away on the dustheap of distasteful work. If there is to be a separate examination for the final M.D. after a rigorous one in medicine for the M.B. it is, we think, wise of the University of London to insist upon a certain amount of logical and metaphysical training, for there can be no doubt of the great practical value of such subjects in heightening the power of mental analysis, but the examination ought to be of primary importance and scarcely possible of compass by the study of one book such as that we are discussing.

Some of Dr. Hyslop's chapters are admirable, and we may refer especially to the one on Localisation of the Mental Faculties, to that on Evolution, and the chapter on Memory; but in other branches, especially in that of psycho-physics, there is room for improvement. If a candidate could make sure of examination in a certain few indicated directions he could have no better guide. It has been suggested that for this examination definite authors should be named and that the questions should be confined to their works, but where so many different modes of explanation of phenomena are given it is probably wiser to avoid individual theories and to rely upon a wide platform with varying possibilities of superstructure. Viewing this as the intention of the University we can only recommend Dr. Hyslop's book as one of several that will have to be consulted.

Transactions of the Epidemiological Society of London. New Series. Vol. XIV. Session 1894–95. Price 6*s*.

A PORTRAIT of the late Sir George Buchanan, M.D. Lond., LL.D., F.R.S., finds a very appropriate place in the recently issued volume of the Transactions, and the obituary notice which the volume contains was evidently written by one who was familiar with his life and work. Sir George Buchanan's services to the society will be held in grateful remembrance by all the older members. For no less than ten years he acted as its honorary treasurer, and during the years 1881–83 he occupied the presidential chair. The volume of the Transactions which is now before us contains some very valuable papers, and includes Mr. Shirley Murphy's presidential address on the Study of Epidemics, which we had the pleasure of printing in our columns at the time, and to which we also devoted a leading article.[1] There is also in the volume a very interesting paper on Epidemic Disease in the Royal Navy by Fleet-Surgeon T. J. Preston, R.N., the society's secretary for the Navy, which forms an admirable article of reference as to the part epidemic disease has played among the dwellers on our battleships and of the administrative changes which have taken place in the matter of food, the allowance of raw spirit, &c. A *résumé* such as this is will prove of great use to the students of epidemic disease in the Navy.

Dr. Joseph Priestley, now medical officer of health of Lambeth, contributes an article on the Use of Eucalyptus Oil as a Disinfectant in Scarlet Fever, in which he deals in a thoroughly impartial manner with the methods advocated by Mr. Curgenven.

The bacteriological side of the science of epidemiology has not been lost sight of in the Transactions. Dr. Klein's paper on the Relation of Bacteria to their Toxines we have already published in these columns,[2] as also the very lucid and concise article on Immunity by Professor Washbourn.[3] Professor Lane Notter contributes an exhaustive article on the Influence of Soil as a Factor in the Production of Disease especially in Hot Climates. The volume is one

[1] THE LANCET, Dec. 15th, 1894.
[2] THE LANCET, Jan. 5th, 1895.
[3] THE LANCET, May 4th, 1895.

to be included in the libraries of all those interested in the more scientific aspect of epidemiology.

Cottage Hospitals, General, Fever, and Convalescent: Their Progress, Management, and Work in Great Britain and Ireland and the United States of America. With an Alphabetical List of every Cottage Hospital at present opened. Illustrated with nearly 50 Plans, Diagrams, &c., including a Portrait of ALBERT NAPPER, Esq., the Founder of Cottage Hospitals. Third edition. Re-written and much enlarged. By HENRY C. BURDETT, Author of "Hospitals and Asylums of the World," "Burdett's Hospitals and Charities," "Helps in Sickness and to Health," &c. Crown 8vo, cloth, gilt, 10*s.* 6*d.*

THE author of this work is well known to be an authority upon hospital management and finance and to take a deep interest in every subject connected with hospitals. The book now before us, though called a third edition, is practically a new book. Everyone is agreed as to the value of cottage hospitals; indeed, to the hard-worked country practitioner they are an absolute necessity, insomuch as they relieve him from much of the wearing responsibility which forms the chief worry of his life. And the benefit to the patient is no less, for the difference between lying ill and helpless in a not over-clean cottage and bearing the same suffering in a clean airy hospital, looked after by a good nurse, is immeasurable. If there be any, and we hope there are many such, who desire to found a cottage hospital we would refer him to this excellent work. Rules for construction, tables of expenses, hints for avoiding friction in management, appliances and fittings necessary, are all treated in a full and careful manner. The important subject of mortuaries is dealt with, and we are glad to see the necessity of them is insisted on. Even in London some of the parish mortuaries are far from being what they should be. Careful scientific investigation, to say nothing of the reverence due to the dead, is impossible in a dark, dirty, ill-ventilated shed. The book is fully illustrated with architectural plans and diagrams, while the various statistical and other tables will be found very useful.

LIBRARY TABLE.

Scattered Leaves for Working Women. By BESSIE BERNARD. Londonderry: James Montgomery. 1896.—This is an address which was delivered before a working girls' club by the wife of Mr. Walter Bernard, F.R.C.P. Irel., of Londonderry. It is throughout characterised by sound practical common sense as well as by a thorough appreciation of the requirements of those to whom it was addressed, and the publication of it in pamphlet form places some useful suggestions at the disposal of those who seek to improve the condition of the working classes by instructing them in the principles of domestic economy. In the pages dealing with the preparation of food Mrs. Bernard very truly says that a hastily cooked steak is in every way inferior to less expensive parts leisurely stewed with vegetables and farinaceous additions such as barley, macaroni, rice, &c. Much of the information herein contained should be useful to middle-class wives and mothers.

Proceedings of the Philosophical Society of Glasgow, 1894–95. Vol. XXVI. Glasgow: John Smith and Son. 1895. Price 10*s.* 6*d.* — The articles of special medical interest in this volume are on the Antitoxin Treatment of Diphtheria, by Dr. John Glaister, and on the New Rules of the Board of Trade as to Colour Testing, by Dr. Fergus. Professor Ferguson writes on printed editions (some of them quite recent) of the Greek and Arabian chemists; while Lord Kelvin, who was the President of the Royal Society last year, has papers on the Thermal Conductivity of Rocks and the Electrification of the Air.

Early Scoliosis or Curable Curvatures of the Spine. By PERCY G. LEWIS, M.D. Brux., M.R.C.S. London: John Bale and Sons. 1895. Pp. 49.—This little book contains a brief account of the anatomy of the spine, the etiology and pathology of scoliosis, and the diagnosis and treatment. The description of the anatomy is too short and indefinite for those who are unacquainted with the subject and unnecessary for those who have studied anatomy. The treatment is the portion of the subject which is most fully dealt with, and it accords with the view that mechanical restraint cannot strengthen weakened muscles, and that exercises of various kinds are necessary. The book treats only of the milder forms of lateral curvature and may possibly be found useful by those who wish to learn a little more about the treatment than is to be found in the ordinary text-books.

JOURNALS AND REVIEWS.

The *Quarterly Journal of Microscopical Science.* Edited by E. RAY LANKESTER, F.R.S., ADAM SEDGWICK, F.R.S., and W. WELDON, F.R.S. London: J. & A. Churchill. Vol. XXXVIII., Part 4. February, 1896. Price 10*s.*—This part of the *Quarterly Journal* contains: 1. An article by Dr. Bashford Dean of Columbia on the Early Development of Amia calva, a fish that is abundant in the Wisconsin lakes, to which region Dr. Dean betook himself in order to secure the eggs and larvæ in May of last year. This sole survivor of the mesozoic ganoids makes its way in the early spring from the deeper waters to the more shallow and reedy margins of the lakes, where nests are formed, about which the polyandrous female hovers and at length deposits her eggs, which are fecundated as they are emitted and immediately become adhesive, and fixing themselves are watched over by a single male. It appears probable, though this has not been actually seen, that on being hatched they attach themselves to the male and are carried away. The ova are large, oblong, and with well-marked germinal area even at an early period. They possess a well-defined zona radiata and a villous external layer, the villi of which become enormously elongated at the part where the egg is attached. The first cleavage occurs one hour after oviposition. The early gastrula stage is reached in forty-seven hours and the egg hatches in 192 hours. The eggs are meroblastic. Dr. Dean gives an interesting comparative table of the gastrulation of the allied genera of Lepidosteus, Acipenser, and a Teleostean fish. The paper is illustrated by several plates and many figures, and is a valuable addition to our knowledge of the life-history of this, as Dr. Dean terms it, most teleostean ganoid. 2. On Kynotus Cingulatus, by W. B. Benham., D.Sc. Lond. This animal is a new species of worm which has been obtained at Imerina in Madagascar. It is of considerable size, being about nine inches in length, but relatively thin, and is characterised by an extraordinary number of deep secondary annuli, so that from a superficial examination it is impossible to tell which are annuli and which are segments. There appears to be no prostomium. The clitellum is of extraordinary length. There are four pairs of generative pores and a pair of very large "claspers," which present details of structure that Dr. Benham describes at length. 3. Notes on the Ciliation of the Ectoderm of the Amphibian Embryo, by Richard Assheton, M.B., who, as the result of his observations, has been led to suppose that cilia may be with great ease acquired by an organism. The last article is a continuation by Julia B. Platt of her investigations on Ontogenetic Differentiations of the Ectoderm in Necturus, the present section embracing the development of the peripheral nervous system, a very creditable piece of work, but too technical to be abstracted.

The *Sanitary Record.* Vol. XVII. No. 321. Price 3*d.*—In addition to some valuable articles in this volume is

a most amusing and not altogether uninstructive paper by Mr. Percy Boulnois on Curious Answers at Sanitary Examinations. We have only space for a few examples, but the whole paper is well worth reading. The definition of a "Common Lodging-house" has puzzled a good many candidates, but we had not previously heard it defined as "a house used by strangers promiscuously for purposes of habitation." Another candidate apparently showed some knowledge of the aërial spread of small-pox when he wrote, "Small-pox is very 'catchy'; I've known cases spread over half-a-mile." A candidate who was questioned as to what precautions he would take during a severe epidemic of small-pox is said to have replied, "I should immediately get an order from the sheriff to seize and destroy the medical officer of health." The following example may be familiar to some of our readers. A death-rate was defined as "a rate which was levied on the living to support the cemeteries."

New Inventions.

IMPROVED CLINICAL THERMOMETER.

Of the making of thermometers there seems to be no end, and it is, perhaps, as well that this is so, for it is an important instrument both in medical and surgical practice.

The special improvement in the thermometer here figured is that all the numbers and graduations are distinctly marked on the back, which presents a flattened surface, thereby rendering the readings more easily and clearly defined, the column of mercury not being in any way obscured or shadowed by the figures and divisions, as is the case in all thermometers where the divisions are marked on the front of the instrument. This is an advantage which will be readily appreciated by the profession in general. Again, both the instrument and the case in which it is placed, having a perfectly flattened surface, it is impossible for either to roll off a table with the consequent possibility of a breakage. These thermometers certainly show a marked improvement over some of the instruments now on the market, and are manufactured by the well-known firm of Messrs. Arnold and Sons of West Smithfield, E.C., from whom they can be obtained.

THE "SPARE HAND."

THE "spare hand" is a very convenient pattern of funnel-holder, consisting of a ring about an inch wide tapering to the usual angle of a funnel and supported on three stout wires rising perpendicularly from a ring-shaped base or foot. This foot is sufficiently heavy to ensure stability and is made of flat bar-iron about ¾ in. wide bent hoopwise into three-quarters of a circle so that it stands on its edges. The funnel is made of ebonite; it is of the usual shape and is not attached permanently to the stand, but fits comfortably into the conical tin-plate ring at the top. The "hands" are of various heights, from 17 in. to 8½ in., the corresponding internal diameters of the annular base being from 7½ in. to 4½ in. In this way a funnel may be conveniently supported over any ordinary bottle, basin, glass, or other receptacle either for the purpose of bottling or filtering liquids or for transferring powders, berries, or small crystals to narrow-necked vessels. The appliance is the contrivance of Mr. A. Haslewood, M.R.C.S. Eng., of Buxton, who originally designed it for dispensing purposes, but it is obviously applicable to a multitude of domestic and trade operations. The London agents are Messrs. Burgoyne, Burbidges and Co., 16, Coleman-street, E.C.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

ELECTION OF PRESIDENT.

AN extraordinary meeting of the Comitia was held on March 30th, being the day following Palm Sunday. In the absence of the President, Sir JOHN RUSSELL REYNOLDS, Sir WILLIAM BROADBENT, as Senior Censor, was in the chair and explained that the President had asked him to express his extreme regret that, owing to indisposition, he was unable to be present, but Sir William Broadbent added that the College would be glad to hear that Sir J. Russell Reynolds was progressing favourably, and had that meeting been held a week or so later in all probability he would have been able to be present.

The Registrar, Dr. LIVEING, then read the President's address. Sir RUSSELL REYNOLDS passed in review the principal events which had happened in the College during the past year, making special mention of the medals and scholarships which had been granted and the various gifts and acquisitions which had been acquired by the College, including Dr. Weber's additional gift of £500 to endow the necessary expenses connected with the Weber Prize. The financial affairs of the College were stated to be satisfactory. The proposed formation of a Teaching University of London was also mentioned, together with a summary of the steps which had been taken to attain that object, and it was hoped that a Bill would be introduced into the Houses of Parliament directly after Easter so that the views of the Legislature might be obtained. Among other important matters dealt with in the address was the petition presented in favour of admitting women to the College examinations. Sir J. Russell Reynolds expressed a strong hope that the Fellows would continue to uphold the old traditions of the College and withhold their consent to such an innovation. In conclusion, he explained that his present state of health compelled him to request the Fellows not to vote for him as President again on that day. He had suffered three times from influenza and the depressing effects of that malady were still upon him.

Dr. POLLOCK proposed a resolution expressing the thanks of the College to the retiring President for his address and hoping that he might shortly completely recover his usual health and strength. This was seconded by Dr. PYE-SMITH and carried with acclamation.

Sir WILLIAM BROADBENT in a few remarks drew attention to the lectures which had been delivered before the College during the past year and announced that the University of Edinburgh were about to confer on Sir J. Russell Reynolds the degree of LL.D.

The election of President was then proceeded with in the usual manner. The first ballot resulted as follows:—Dr. Wilks, 76 votes; Sir William Broadbent, 20; Dr. Dickinson, 9; Dr. Ogle, 9; Sir William Roberts, 7; Dr. Church, 6; Dr. Pollock, 6; Sir William Priestley, 3; Dr. Douglas Powell, Sir Dyce Duckworth, and Dr. Clifford Allbutt, 1 vote each. One voting paper was blank.

As Dr. Wilks did not obtain the necessary majority of two-thirds of the votes, a second ballot was taken between him and Sir William Broadbent, when the numbers were announced to be—Dr. Wilks, 114; Sir William Broadbent, 22. Dr. Wilks was therefore declared as having been elected President, the oath being administered by the Senior Censor.

Dr. WILKS, in a few well-chosen words, thanked the College for the honour they had done him in electing him as President. He had never sought for such a prize, but now that he had won it, although he had already exceeded the years allotted to man, he should devote whatever force remained to him to the service of the College.

The College seal was then set to a lease to the Surveyors' Institution of certain rooms at the Examination Hall.

The following communications addressed to the College were received: (1) from the Royal College of Surgeons of England reporting certain proceedings of the Council on Feb. 13th and March 12th; (2) from the Mayor of Dôle, France; and (3) from Sir James Dick, K.C.B., R.N.

The President then dissolved the Comitia.

THE LANCET.

LONDON: SATURDAY, APRIL 4, 1896.

THE Bill introduced by the Lord Chancellor on March 20th, and read a second time, is a measure which proposes to check the liberty of publication of evidence of indecent matter given in the High Court. As the law at present stands there are two methods by which the publication of indecent matter can be checked, but the limit of action in either case is so restricted that it cannot be doubted that additional powers are desirable. In the first place the court may sit *in camerâ*, but according to the Lord Chancellor this only obtains in the following cases: (1) in lunacy inquiries; (2) in Chancery investigations in the matter of its wards; (3) where the object of the action might be absolutely destroyed by hearing it in public; and (4) in hearing at petty sessions. In the former two the general rule is not broken "because in the ordinary sense the administration of justice is not concerned." It will be seen that the safeguard under consideration is very partially applied, and, moreover, the nature of the exceptions narrated can obviously only touch the fringe of the alleged evil. The other check on the publication of indecent matter divulged in the courts is the Press Act, but this is rarely put in force in the cases under consideration on account of the general terms as to who should prosecute and the expense incidental to litigation. The Bill brought in by the Lord Chancellor proposes to impose on the judges of the High Court the responsibility of ordering what evidence shall not be published, and to inflict punishment on offenders by making them guilty of contempt of court. It will be remembered that a few years since a similar Bill was introduced, but in this those who contravened the order were to be liable to a criminal indictment for misdemeanour. We are not surprised to learn that the Lord Chief Justice, the Master of the Rolls, and the majority of the judges are strongly opposed to adding to offences already within the category of contempt of court. It is impossible not to recognise the extent and weight of this opinion. However, this is a detail and can be remedied in committee.

It is astonishing to find such a wide divergence in the views held on the one hand by the Lord Chancellor, Lord JAMES, and the Marquess of SALISBURY, and on the other by the Lord Chief Justice, Lord HERSCHELL, and Lord ROSEBERY as to the advisability of curtailing the freedom of publication by the press of the evidence given before our tribunals. We feel constrained to subscribe to the arguments of the former speakers that further means are wanting to shield public morality. Can anyone jealous of the purity of English homes contend for one moment that matters obscene and indecent, however guardedly reported, are not almost daily recorded in the newspapers? The very care exercised by the most reputable journals is at once a stimulus to the imagination of the prurient. Youth is the age in which idealisation is exhibited in fulsome glow and strength and in which receptivity is most acute. Given the keynotes of stories abounding with the history of the animal passions and those whom it is specially desired to preserve from contamination will not only readily fill in the blanks but add fancied embellishments to tales already inimical to the maintenance and growth of virtue.

The Bill as it stands confines the power of censorship to the judges of the High Court, and there seems to be almost a unanimity of legal opinion that it would be dangerous to extend it to petty sessional magistrates. The scope of its influence is thus greatly minimised, so much so in fact that it is questionable if the possible evil of abuse of the power would not be more than counterbalanced by the probable gain from its wider distribution.

Thus far we have sketched the general terms of the Bill and the arguments which have been advanced by the Lords for and against its acceptance. There is, however, one question of paramount importance to our profession and that is that no exception is made in favour of the medical journals which are not addressed to the public. To prohibit the publication of evidence which has a direct scientific application in organs the primary and special function of which it is to digest such evidence and furnish products that work for the physical and moral well-being of the community seems to us a short-sighted policy. It will be granted that no section of the press is more careful to exclude obnoxious matter from its reports. Moreover, where it is necessary to discuss questions relating to delicate subjects it is done in highly technical terms so that perusal of the text by the general public is little likely to lead to information harmful to public morals. It is obvious that the medical press must be exempted from the repressive measure we are generally advocating, and some means consequently will have to be devised to decide what are and what are not purely medical journals. The Legislature could not undertake this discrimination, nor could it be left to the discretionary power of the judges. We would suggest that the selection be left to the General Medical Council, and that that body should be asked to supply a schedule containing the names of those publications which it considers to to be strictly "medical journals." The General Medical Council should also be empowered to add to such list the names of new medical publications should occasion arise.

THE Registrar-General's Annual Summary, giving particulars of the deaths registered in London and other large English towns in the year 1895, has just been published. Although issued in the form of a mere pamphlet, this return, as will presently appear, is really of considerable importance. The earlier annual summaries, compiled by Dr. FARR some twenty-five years since, were little more than aggregations of the facts for the respective years which had been already published in the weekly bills of mortality. Since that date the successive annual issues have been gradually improved and the area and population dealt with have been extended. For the reason that these summaries are condensed from the weekly returns

of the local Registrars they can be published much earlier in the year than the more elaborate annual reports of the Registrar-General can possibly be completed, because the tabular matter of the latter is classified from the certified copies of the death registers by skilled experts in the statistical branch at Somerset House. For this very reason, however, the latter series of reports are much more trustworthy in point of detail than the former. Nevertheless, for the practical purposes for which they are intended the data contained in the annual summary are perhaps sufficiently precise to furnish useful provisional rates of mortality.

With the improvements and additions which it has received quite recently, the Registrar-General's annual summary will probably be regarded by sanitarians as the most useful of all the statistical publications of Somerset House. It now furnishes, with commendable promptness, carefully tabulated returns of births, deaths, and causes of death, with corresponding birth- and death-rates for each of the 100 chief towns of England and Wales, which, taken together, contain about one-third of the total population of the country. The rates of mortality for these towns, which constitute so many separate sanitary areas, are available for comparison, and having been duly corrected at the central office are almost indispensable to the medical advisers of the local sanitary authorities, both in London and in the provinces, for the preparation of their annual reports. The average mortality last year n the thirty-three great towns of England and Wales was equal to a rate of 20·7 per 1000 of the population, and was, therefore, higher than the extremely low rate of 1894 by 1·1 per 1000. Among these towns the rate ranged from the lowest, 14·5 in Croydon and 19·9 in London to 25·7 in Salford and 28·8 in Liverpool. These are the uncorrected rates; but, as is usefully shown in the summary, if the rates be corrected for age and sex differences of population they will be considerably modified, especially in the larger manufacturing towns, where correction invariably means increase in the mortality. Instead of expressing corrected local mortality in the ordinary way—i.e., as so many deaths in a thousand of population—it is easy by the help of a table here published to express it as follows:—The same number of lives that in the year 1895 gave 1000 deaths in England and Wales, gave 1193 in the thirty-three great towns, and whilst it gave only 806 deaths in Croydon, it gave as many as 1130 in London, 1541 in Salford, and 1707 in Liverpool. Infantile mortality in the great towns corresponded to a rate of 182 per 1000 births, and was higher than that recorded in these towns during any year of the preceding decade. The mortality from diphtheria and diarrhœa showed an increase last year, whilst that from small-pox, measles, scarlet fever, whooping-cough, and fever was below the average. In the metropolis the deaths registered last year were below the average, they corresponded to a rate of 19·8 per 1000, which is reduced to 19·4 per 1000 by excluding the deaths in public institutions of persons known to have been strangers. Of the total deaths in London last year nearly 27 per cent. took place in public institutions. About one in every seven deaths occurred in a workhouse or workhouse infirmary, one in every fifty-three in a metropolitan asylum hospital, one in every eleven in some other hospital, and one in every fifty in a public lunatic or imbecile asylum. Infantile mortality in London, as in the other great towns, was above the average: it was equal to 166 per 1000 births. The rate was lowest in the northern group of sanitary areas and highest in the central group. The net gain in life saved in London during 1895 is represented by 1263 lives; in other words, if the mean death-rate prevailing in the previous decade had continued throughout 1895 not fewer than 1263 lives would have been sacrificed in addition to those actually lost by death.

On the other hand, however, excessive mortality occurred last year from diseases which for many previous years had shown exceptional fatality. There was, for example, an excess under the heads of influenza, diphtheria, and cancer, as compared with the corrected average. Influenza caused not fewer than 2156 deaths in the metropolis in the year 1895, of which as many as 1570 occurred between the middle of February and the end of March. In 12 of the 43 metropolitan sanitary areas the deaths from influenza exceeded the number recorded in any year of the preceding five. Compared with the average in those years, the excess in 1895 was least in the eastern group of areas and greatest, amounting to 65 per cent., in the southern group. Amongst other common zymotic diseases measles and diarrhœa were unusually fatal last year in London, whilst small-pox, scarlet fever, and whooping-cough were less fatal than is usual. The incidence of mortality in the various sanitary areas is seriously affected by the deaths in hospitals and other public institutions. With the object of affording means of comparison between the sanitary districts or groups of districts a table has been inserted in the annual summaries since 1885 in which the deaths at institutions are distributed to the sanitary areas from which the deceased had originally been admitted. A second table is also added in which the deaths from various causes in groups of sanitary districts are reduced to rates per 1000 of the population, and these results are further placed in comparison with the average rates in the previous decade. According to the 1895 tables small-pox does not appear to have been notably prevalent in any group of sanitary districts. Measles was exceptionally fatal in the central and eastern groups, and scarlet fever, diphtheria, and diarrhœa in the eastern group. The corrected death-rate from phthisis, which was given in these summaries for the first time in 1894, still seems to affect exceptionally the central group of districts. In the sixty-seven English towns of secondary importance the death-rate in 1895 was equal to 18·6 per 1000, exceeding by 2·6 the unusually low rate of the previous year; the proportions ranged from 10·1 in Hornsey to 25·7 in Merthyr Tydfil and 26·0 in Longton. Infant mortality averaged 176 in these towns, and ranged from 121 in Hastings to 240 in Longton. The mortality from the principal zymotic diseases averaged a rate of 2·40 per 1000, and ranged from 0·62 in Bath to 4·79 in Warrington and 5·85 in Barnsley. From returns submitted by the authorities of thirty-nine of the principal foreign and colonial cities, with an aggregate population of 23,500,000, it appears that the mean death-rate last year was equal to 23·6 per 1000 of the population. As had been the case in previous years, the rate last year varied

enormously in those cities; for whilst it did not exceed 13 per 1000 in Sydney and 14 in Brisbane, it was as high as 36 in Moscow, 38 in Madras, and 48 in Cairo.

THE choice of a man to fill the post which qualifies its holder for official recognition as the head of our profession in this country can never be without great interest to us all, but the result of the recent election to the Presidential chair of the Royal College of Physicians of London had been so universally forecast that the excitement to be derived from suspense or from rival appraisement of different claims did not enhance that interest. From the moment it was known to be Sir J. RUSSELL REYNOLDS'S intention to request his colleagues not to re-elect him to the chair which his dignity and courtesy have so well graced for the past two years, the eyes of the profession were turned upon the distinguished physician who was marked out by the place that he occupied in the poll of 1893 as an urgent claimant for the reversion of the honours. Sir J. RUSSELL REYNOLDS obtained the presidency in 1893 by the narrow majority of three votes over Dr. SAMUEL WILKS—the opinion of the profession being very clearly registered that between them there was not much to choose—and when the regretted information that the former would retire became known to the profession it was widely felt that upon the latter the new choice would fall. The claims of Dr. WILKS to such recognition from his fellow physicians are, indeed, of high order. Through a long and honourable career he has invariably upheld the highest and purest standard of professional morality and ethics; he is esteemed far beyond the great medical school with which his name is linked; his contributions to pathological science are recognised all the world over; while his connexion with the University of London may be of no small advantage to the College in any further proceedings for the reconstitution of that University. On many grounds Dr. WILKS has well earned the right to the "blue riband" of the profession, while his election will be well received by the profession at large for it is men of his stamp whom it is a delight to honour. We wrote of Dr. WILKS in almost these identical words after the result of the election of 1893 had been announced, and in repeating them we beg to congratulate him upon the official stamp that was set last Monday upon the sentiments therein contained. We have also to offer a few words of cordial adieu to the retiring President, for whose tenure of office no one has anything but words of warm praise. The deliberations over which he has presided have taken from him a quiet and business-like tone that has greatly facilitated official labour; he has not spared himself, but for others the wheels have always run smoothly. We note with great pleasure that Sir WILLIAM BROADBENT, the Senior Censor of the College, was asked to state to the last Comitia that Sir J. RUSSELL REYNOLDS'S state of health has much improved and was still improving. The profession knows well what the terrible prostration of recurrent attacks of influenza means and will join us in heartly congratulating Sir J. RUSSELL REYNOLDS on his recovery therefrom and in wishing for him many full years wherein to devote the freedom from official toils that he has felt it right to seek to the welfare of the sick and the advancement of medical knowledge.

Annotations.

"Ne quid nimis."

KITSON v. PLAYFAIR.

THE trial of the above cause, before Mr. Justice Hawkins in the Queen's Bench Division of the High Court, was brought to a conclusion on Friday, March 27th, when the special jury returned a verdict for the plaintiff, the damages being assessed at £12,000. Leave has been given to appeal, and consequently we are precluded from discussing at the present juncture the merits of this remarkable case. We will, therefore, content ourselves with a short historical *résumé* of the facts. Mrs. Kitson—one of the plaintiffs—after some years' residence in Australia came to this country, her husband staying abroad. Some sixteen months subsequently to her arrival in England she had occasion to consult Dr. R. M. Williams for metrorrhagia. With Mrs. Kitson's consent Dr. Playfair was called in. A month later, as the hæmorrhage had not ceased, it was decided to make a further examination under an anæsthetic. On this occasion a substance was removed from the uterus which, in Dr. Playfair's opinion, was the result of a recent pregnancy. He informed Mrs. Kitson of the conclusion he had formed. It may be remarked parenthetically that Mrs. Playfair was a sister of Mrs. Kitson's husband and also of Sir James Kitson. The latter gentleman, in conjunction with another brother, had up to this period made Mrs. Kitson a yearly allowance. The gist of a lengthened correspondence between Dr. Playfair and Mrs. Kitson had regard to the termination of social and family relations between their respective families unless Mrs. Kitson could give Dr. Playfair a satisfactory explanation of her recent condition. In the end Dr. Playfair confided his conclusions to Mrs. Playfair and also to Sir J. Kitson. Mrs. Kitson and her husband brought an action for slander against Dr. and Mrs. Playfair. The pleas put on the record by the defendants were two: (1) that they had not published the slander; and (2) that the communication made to Sir J. Kitson was privileged. No plea of justification was entered and consequently the judge would not allow the merits of the case as bearing on the duration of the pregnancy to be gone into, or, in other words, he ruled that it was not competent for Dr. Playfair to attempt to prove the truth of the conclusions he had formed. From a medical point of view the case is one of surpassing interest, whether we consider its bearing on the question of retained products of conception or its graver reference to professional etiquette. Concerning this latter phase we take occasion to recognise the generally gratifying tone of the organs of public opinion in their comments on the discharge by the great body of the medical profession of the delicate duties incidental to its vocation. The agreed terms upon which the appeal should be made to the higher court were not disclosed by counsel. It is open to contend (1) that the communication made by Dr. Playfair to Sir J. Kitson was privileged; (2) that there was misdirection by the judge who tried the case; (3) that the verdict was against the weight of evidence; and (4) that the damages were excessive. There is no need, however, to anticipate the course of procedure. When the litigation has terminated it will be our duty to offer a general criticism of the case in so far as it affects the interests of our profession and of the public.

THE ILL-REGULATED SALE OF POISONS.

IN THE LANCET of March 28th we directed attention to the case of a child who died suddenly from the effects of a

home-made concoction of laudanum administered as a cough mixture. Our excuse for again alluding to it is not that such accidents — if so they should be described — are very uncommon. Most practitioners have unfortunately had experience of them. To us the circumstances of the case referred to are suggestive of other defects than mere parental indiscretion. The very fact that an opiate should be readily obtainable by any casual purchaser is an anomaly which assuredly cannot tend to strengthen belief in the adequacy of the Sale of Poisons Act. It is true that laudanum is saleable only under certain restrictions, and in particular that it must be labeled "poison." But, on the other hand, there is practically no limitation as to the amount that may be purchased. The unaided discretion of a trained dispenser and the poison label sum up the total of restrictions in the case of opiates. A number of drugs little, if at all, less potent are as easily obtainable. Many more, the strong acids and alkalis among them, are freely obtainable without mark or sign, even without the guarantee of a duly qualified salesman. It has been contended that in the case of these latter some freedom should be permitted when the article sold is required for ordinary use in the household, in the arts, or in agriculture, and there is some force in the contention. Yet when we examine the matter more closely the objection does not seem to be insuperable. There need be nothing to prevent a purchaser from obtaining whatever drugs of this class he requires under suitable precautions at the nearest druggist's, or in rural districts from the holder of a special licence. Undoubtedly some skill will be required in the adaptation of practice to theory before we can hope to come at a final settlement of this question, and perhaps an absolute settlement may not be practicable. Nevertheless, it is clear, in the light of such unfortunate occurrences as that we have mentioned, that much more strenuous efforts are called for than have yet been made to adapt the machinery of the law to its professed purpose of regulating the sale of poisons. Any legislative effort, moreover, must, of course, take account as heretofore, but with even more particular care, not only of single drugs, but of the same in their combinations. The effect of a preparation does not depend on any pharmacopœial expression. An irritant or narcotic nostrum, however tastefully prepared, may be as truly a poison as any accredited compound of strychnia or aconite, and this is a point which ought to be more clearly recognised in practice than it is.

THE LABOUR COLONY SYSTEM.

THE last volume of the *Proceedings of the Philosophical Society of Glasgow* contains a carefully reasoned and suggestive article by Professor R. Patrick Wright pleading for the institution of "farm colonies" as a means of solving the difficult problems connected with the unemployed. Under the Scotch Poor Law it is illegal for relief from the rates to be given to able-bodied persons, and even though parochial authorities may interpret the statute with some leniency it is unquestionable that no organisation exists for the assistance even of the industrious poor who may be, through no fault of their own, suddenly thrown out of work and brought to the verge of starvation. Professor Wright argues that the labour colony system can deal humanely and effectually, not only with these cases, but also with discharged prisoners, habitual idlers, and confirmed vagrants. In Germany there are twenty-six such colonies, and in England the Salvation Army has one at Hadleigh in Essex. Turning to the financial side of the question, he mentions that during seventy-four days in the winter of 1892–93 the Glasgow magistrates provided work for the unemployed in stone-breaking, trenching, and digging, subsistence wages only being paid. The whole cost incurred was £3103, and the value of the work done was estimated at £1402, so that the municipality incurred a loss of £1701. As the average number of men at work was 467 the outlay per man per annum, calculated on this deficit, was £17 19s., or one-third more than the average cost per head on the farm colonies, without any of their incentives to industry and thrift. It is satisfactory to learn that a philanthropic association in Glasgow may, perhaps, put some of these doctrines to the test of actual practice during the present year.

ROENTGEN RAYS AT THE CLINICAL SOCIETY OF LONDON.

PROFESSOR SILVANUS THOMPSON gave a demonstration before a special meeting of the Clinical Society of London on March 30th of the method of production and the practical use of the Roentgen Rays. He exhibited the gradual changes which the character of the electrical current undergoes as the air is exhausted within a tube and demonstrated the differences between the kathode and the "x" rays. He stated that in producing the photographs he had found the ordinary dry plates to be quite as good as the extra rapid ones, and he also dwelt on the advantages of a screen coated with platinocyanide of potassium when using the cryptoscope. He added that he believed a great development in the photographs would shortly take place in the direction of the recognition of the relative depth from the surface of the various shadows in the picture by taking photographs of objects at two different angles and then mounting them in a binocular stereoscopic apparatus. The demonstration was attended by nearly 400 of the members, and the hearty applause at its close showed how keen had been their interest and how great their appreciation of the efforts of the lecturer.

TUBERCLE AFFECTING THE EYE.

IN the *Archiv für Augenheilkunde*, Band xxxi., Heft 4, p. 359, Dr. Rudolf Denig publishes the results of investigations which he has made in order to ascertain the frequency of primary tubercle of the eye and the number of cases in which it occurs in patients suffering from tuberculous affections of other organs. In order to carry out his purpose Dr. Denig went carefully through the literature of recorded cases and also examined 200 patients suffering from tuberculosis of the lungs, bones, or lymph glands. His results are as follows. Out of 72 cases of tubercle of the conjunctiva, in 52 no other deposits of tubercle could be detected in any organs of the body; in 14 the signs of further disease were indefinite; in 7 only of the cases was there undoubted tuberculous disease in other organs; and in 3 there were evidences of old tuberculous trouble. Out of 86 cases of tubercle of the iris and ciliary body, in 67 no further deposits could be found at the time of examination; 27 of these, however, were anæmic, emaciated patients in whom tuberculous trouble was suspected but could not be definitely detected; the other 40 were perfectly healthy except for the eye trouble; in 4 cases there were signs of old disease. Out of 31 cases of tubercle of the choroid, in 16 no other evidences of tuberculous trouble could be established. Of the 200 patients suffering from tuberculosis whom Dr. Denig himself examined, in only 5 did he find the disease affecting the eye. He therefore came to the conclusion that as local tuberculous disease of the lungs and bones are fully recognised, so we must accept local tuberculous disease of the eye in the sense of that organ being primarily affected. Another form of tubercle of the eye, which he maintains is much rarer, is a metastatic deposit from some other deposit, either in the lungs or elsewhere.

With regard to prognosis, he bases this upon the form which presents itself. If the disease is primarily in the eye the prognosis is generally favourable, but care must be taken to distinguish between the appearance of granulations and the irregular form which has been described by Leber as "abgeschwächte Tuberkulose." The existence of granulations points to a metastatic deposit and the prognosis is then unfavourable.

THE REMUNERATION OF POOR-LAW MEDICAL OFFICERS.

"A COUNTRY PARISH DOCTOR," whose letter was published in our issue of last week, has our entire sympathy in the disadvantageous position in which he finds himself by reason of his inadequate remuneration, his age in relation to superannuation, and the questionable return which is to be made to him as a result of his further reduced salary should the Poor-law Officers' Superannuation Bill become law. We have long felt that the medical profession is degraded by the paltry pittances doled out to its members who have taken Poor-law appointments in many districts. A superannuation allowance in prospect is not a great inducement to a medical man if the salary on which it is to be based, and that too after certain deductions have been made annually, is of the miserable amount which pertains to only too many such appointments. It will doubtless always happen, moreover, that a measure designed to benefit the many, as in the case of this Bill, will work harshly as regards a few, and while there are certain to be others in the position of our correspondent it is a subject for serious consideration whether the present Bill should be imperilled by striving to amend its provisions so as to meet individual needs. One point, however, we should like to see altered—namely, the age at which superannuation may be claimed. We certainly think that officers should be entitled to retire on a pension at the age of sixty years if they be so minded. And this would, we imagine, remove one cause of our correspondent's complaint.

THE PLAGUE IN HONG-KONG IN 1894: A STORY OF CHINESE ANTIPATHIES.

THE annual report of Sir William Robinson, the governor of Hong-Kong, for 1894 to the Colonial Office is one of much interest, by reason particularly of its references to the plague which that year attacked the settlement. It was early in April that the plague was heard of in Hong-Kong as raging on the mainland near Canton, and not for some little time did the island become affected. But in the middle of May Hong-Kong was itself invaded by the dread disease, and that, too, at a season when, by reason of drought and a rising temperature, the malady was not long in severely attacking the native population. The cases gradually rose from 20 to 30 per diem, and then to from 60 to 70 daily, and even to upwards of 90, and on one day to 109, inclusive of dead bodies picked up in the streets. The report speaks of the discovery of the plague bacillus and directs attention to the strange and unfortunate antipathies which the natives manifested towards the European medical staff in their efforts to curtail the spread of the epidemic. The hospital hulk *Hygeia* was moored near the shore, and every care was taken to make it replete with conveniences and staff for the proper treatment of the sick. Sir William Robinson says, however, that—

"From the first the Chinese strongly objected to the removal of their sick to hospitals under European management. Educated to insanitary habits, and accustomed from infancy to herd together, they were unable to grasp the necessity of segregation; they were quite content to die like sheep, spreading disease around them, so long as they were left undisturbed, and they preferred to see their sick friends and relations suffering unspeakable miseries rather than be parties to their removal to European hospitals, where every comfort was provided. These feelings, no doubt the result of blind prejudice and superstition, naturally prompted concealment, which eventually necessitated the organisation of search parties and a system of house-to-house visitation."

Harrowing tales were told of the devices to which the natives resorted to try to conceal their sick from the search parties sent out day by day. This action on the part of the natives made any speedy curtailment of the infectious malady the more difficult, and, indeed, in great degree rendered the efforts of the cleansing and disinfecting volunteer staff nugatory. The epidemic caused 2550 deaths before it ceased in early September, and the necessity of burying the dead in common graves was a great shock to the feelings of the people, whose chief form of religion consists in the rites and ceremonies of burial and in the annual worship of their dead. The feelings thus roused led the people to open rebellion, and concessions, such as the presence of Chinese medical attendants in the European hospital and the removal of those patients who were fit for the journey to Canton, had to be granted. The demand was made that plague-stricken people should be allowed to leave the colony of their own free will. This preposterous demand being refused the people left the settlement to the number of 100,000 of all ranks. Of the patients only 18 per cent. of those of Eastern extraction recovered, whilst 82 per cent. of the cases among European residents ended in recovery, a result sufficiently and indeed strikingly indicative of the difference of treatment accepted by the two classes. Trade was deplorably interfered with, and just as hopes of better things were anticipated on the subsidence of the plague the bursting out of the war storm once again rendered matters terribly unsettled. But taking the year throughout the trade of the colony showed a very creditable aggregate so far as the mainland ports were concerned.

EPILEPTIC MELANCHOLIA.

DR. J. M. FINKER, assistant superintendent of Rockwood Hospital, Kingston, Ontario, reports an interesting case of epileptic melancholia[1] in which after death foreign bodies were found in the heart and lung. The patient was a labourer's wife aged thirty-two. She had had several attacks of insanity for four years previous to her admission to the asylum. Her mother and grandmother were insane; the latter was also subject to epileptic seizures. The patient had made several attempts on her own life, on one of these occasions opening two large veins in her arm with a piece of broken bottle and a pair of scissors. When she was under the suicidal impulse she used to say that "she would be better out of this world, that no one cared for her." At times she was fairly well and occupied herself in sewing or knitting. Whilst in the asylum her whole history was one of suicidal attempts which were shown by the scars on her arms and forearms. Trephining was performed, a portion of the brain convolution being removed corresponding to the nervous supply of part of the local origin of convulsions. She made an excellent recovery from the operation. She was greatly relieved of her distressing mental symptoms, but pulmonary tuberculosis supervened and ran a rapid and fatal course. At the necropsy the heart was found to weigh nine ounces, and on examining the left auricle something sharp was felt near its appendix, which proved to be a needle. On exposing this it was found embedded in the wall of the left ventricle, close to the anterior interventricular groove. The needle pointed upwards, leaving the left ventricular wall just anterior to the aortic valve. Then it penetrated the

[1] Canadian Practitioner, February, 1896.

wall of the left auricle at the margin of the appendix auriculæ. The pointed portion of the needle then extended across the opening into the appendix. The point was just touching the opposite wall of the auricle, where a little papilla of vegetations was set up by the irritation of the point of the needle. In the ventricle the needle penetrated the heart muscle immediately behind the coronary artery on its way to the anterior interventricular groove. The needle was firmly embedded in the tissue, so that it could not be pulled out without using considerable force. It was one and five-eighths of an inch long. It was black in colour and its surface quite smooth. The left pleura was firmly adherent throughout. The superior lobe of the left lung was a mass of tuberculous nodules and some small cavities. The inferior lobe presented another feature of interest in the presence of a broken knitting needle. There was an old cicatrix in the skin to the left margin of the sternum. The needle, pointing downwards, entered the lung at the anterior border of the inferior lobe about two inches from the lower margin, passing downwards, backwards, and slightly outwards, reaching the outer surface of the lung at a point about four inches from its posterior border and two inches above the circumference of the base. The needle was four and five-eighths of an inch long, the broken end being slightly bent and the other end pointed and sharp. The needle was completely encysted. Neither point emerged before the manipulation of the lung in its removal. It was quite black and was not in any way corroded.

THE QUESTION OF MEDICAL DEFENCE.

THE points raised in Dr. Drage's letter on our article[1] on the report of the Medical Defence Union are well worthy of the attention of the profession. All the same, we entirely dissent from his conclusions. We have consistently discouraged the multiplicity of societies having the same object, and so have advocated the union of the two protection societies. But we fail to see that one good strong society for the one purpose of defence of members of the profession against unreasonable or malicious charges is too much for the work. It is very doubtful, indeed, whether the British Medical Association would add to its strength by attempting the work done now so well by the Medical Defence Union and its sister society. It certainly could not do the defence work better than it is done. And if this work came to be added to the work of the Association, already multifarious enough, the chances are it would be worse done. The disposition of one big body to absorb and appropriate the function of other bodies less than itself, but not less efficient, has many illustrations, and is not to be encouraged. Still more doubtful would be the policy of relieving the corporations from their ethical functions by one huge corporation representative of the whole profession. The bodies that give diplomas cannot be relieved of the disciplinary duties attaching to their authority. The association of such duties with that of examining and admitting to the profession is as old as the oldest qualifying body, and no conceivable Parliament is likely to alter the fact. We entirely agree with Dr. Drage that such bodies should recognise the corporate rights of their members without delay, and that they would strengthen themselves by doing so. But if the British Medical Association is not likely to have handed over to it as a voluntary association the ethical powers of the corporations it has enormous powers as a voluntary association. And it is only fair to say that it has no more used its full powers as a voluntary association than the corporations have used their full legal powers to repress the evils of the profession. There can be no doubt that if ten years ago the British Medical Association had resolved that no one should enjoy its membership who took office in a medical aid association, or any other association which was proved to employ touters and to sweat its medical officers, it would have done much to prevent the evils which are now so seriously degrading the profession? The Association has powers as a voluntary association which it could not have acting under the sanction of Parliament, and it will best serve the profession by retaining its freedom and using those powers well.

[1] THE LANCET, March 21st, 1896, p. 794.

THE VACANCY ON THE SENATE OF THE UNIVERSITY OF LONDON.

SIR JOSEPH LISTER, B.A., M.B., has consented to be put in nomination as a candidate to fill the vacancy on the Senate of the University of London caused by the resignation of Mr. Hutton. Mr. Walter Rivington, B.A., M.B., M.S., has also been invited to become a candidate for the vacant seat. The vacancy is filled by the Crown from a list of three persons submitted by Convocation, and on the present occasion the choice falls on a graduate in medicine or science.

THE PORTSMOUTH CORONER ON DANGEROUS LAMPS.

AT an inquest at Portsmouth on March 23rd Mr. T. A. Bramsdon, the borough coroner, had something to say about cheap lamps. A woman aged fifty had been left in bed with a lamp which two years ago had been bought for one penny. She was afterwards found terribly burned—indeed, in flames—but gave no intelligible explanation of the occurrence. Mr. Bramsdon in his summing up said such lamps were as dangerous as it was possible to conceive and could be termed nothing else but death-traps. Cheap lamps were deplorable, awful things, and their seriousness could hardly be realised. He referred to the continual reports of deaths occurring from the use of such articles all over England and expressed his opinion that the sooner legislation put a stop to their use the better it would be.

THE LATE GIUSEPPE FIORELLI.

MEDICINE owes a debt of gratitude to the distinguished archæologist above named, for he it was who not only enriched the treasure-trove of ancient surgical instruments, but also preserved for the comparative anatomist a vast number of skeletons eighteen centuries old which otherwise would have been lost to history and science. These services he rendered in his capacity of superintendent of the excavations at Pompeii. For twelve years he was the life and soul of the operations by which that buried city has been restored to something like its former self in outline and in detail. Before 1860, the year in which the Bourbon Government was replaced in the Two Sicilies by that of the House of Savoy, excavation was conducted at Pompeii on unscientific lines, more attention being given to whatever objects of artistic or negotiable value could be unearthed than to the determination of the plan of the city, its buildings public and private, its occupations, its *vie intime*. Every visitor to the National Museum of Naples must have profited by the richly represented and beautifully arranged relics of Campanian life placed *en évidence* before him, and supplementing so fully and so vividly a walk through the silent streets and tenantless houses of the once animated "Rome-super-Mare"—the "gay and guilty Brighton of the first century." All that memorable experience was made possible for him between the years 1860 and 1872 by Fiorelli—an epoch in archæology which has been continued under the inspiration of its directing mind to the present day. During those twelve years some 600 skeletons and fragments of human bodies were excavated, all the individuals to whom these skeletons belonged having, with one exception, died in great agony. Suffocated by the dense

showers of dust which descended from Vesuvius and which by the heavy rainfall that ensued became so much liquid mud, their bodies were covered by this last as by an envelope, which, on hardening, became "a closely fitting mould" stereotyping every feature of the dead. Gradually the soft parts disappeared while the bones remained within the mould; and so "when the hollows were come upon by the excavators the happy idea occurred to Professor Fiorelli to pour in some liquid plaster of Paris and allow it to harden." The mud, perfectly dry, was with the utmost care peeled from the plaster and in this way a perfect cast was obtained—in the language of Mr. Neville Rolfe, H.B.M. Consul at Naples, "a cast consisting of the bones of the deceased Roman citizen, clad no longer in flesh, but in plaster of Paris, which had assumed the exact shape, not only of his face and body, but of every fold of his clothes." A precious addition has thus been made to the resources of what may be called "historical osteology," and interesting comparisons have been instituted between the bony framework of the Italian as he existed eighteen centuries ago and the Italian of the present generation. These "confronti" strengthen the conclusion come to by Professor Mosso of Turin, who, having found a number of skeletons in a sub-Alpine cave and proved them by accessory evidence to have been those of Roman soldiers of the late Republic, compared them with the skeletons of Italian soldiers recently dead, and placed it beyond doubt that the difference between the two types of men was small and not to the advantage of the more ancient. So that Julius Cæsar's famous Tenth Legion, that could go everywhere and do anything, owed its success as much to consummate discipline and generalship as to any exceptional advantages of physical development. Professor Fiorelli died on Jan. 29th at Naples in his seventy-third year, but for the last decade of his life, with failing eyesight which latterly ended in total blindness, was content to rest on the laurels he had so honourably won.

THROMBOSIS IN CEREBRAL SINUSES.

IN the third volume of the *Edinburgh Hospital Reports* Dr. George A. Gibson and Dr. Purves Stewart report a case of somewhat unusual character and of more than usual interest. The patient was a young woman aged twenty-five years, who was admitted to hospital in a state of unconsciousness. She was said to have suffered from indigestion for a long time and from occipital headache for a fortnight. Four days before admission the headache became much more severe and she began to have attacks of vomiting. She became more and more dazed and stupid and finally unconscious. The family history revealed nothing of significance except that her father had died two years previously from "inflammation of the brain." The patient on admission was found to be well nourished and well developed. The temperature was 102° F. and the pulse and respiration were rapid. She lay on her back, with flushed face, occasionally grinding her teeth, and tossing her limbs in an aimless, restless, uneasy fashion. It was impossible to rouse her. The eyes were almost closed, the pupils semi-contracted but reacting to light, and the appearances of the optic discs and fundi were normal. There was no albumin in the urine, of which a specimen was obtained by means of the catheter. During the night there were recurrent convulsions characterised by extension of the arms and legs, clenching of the teeth, and distinct opisthotonos. The breathing during the fits became loud and stertorous, the face flushed, the pupils contracted, and the eyes directed downwards and to the left. There was no material change in the condition until about 10.30 the next morning, when the respiration suddenly stopped and the patient became deeply cyanosed. Bleeding and artificial respiration brought about distinct but only temporary improvement, but the artificial respiration had to be kept up, and the patient gradually sank and died about three and a half hours after the natural respiration had ceased. At the necropsy the inner surface of the dura mater was everywhere considerably injected and the superior longitudinal sinus and the lateral sinus were occupied by a mixed blood-clot, chiefly dark red in colour, with a slight admixture of scattered white flakes. The convolutions were flattened and the surface of the brain was dry and sticky. The arteries at the base were healthy and free from thrombi. No tubercles were described. There was no morbid condition of the cranial bones. On section the grey matter appeared fairly healthy and so did the white, but the puncta cruenta were unusually distinct. On exposing the lateral ventricles each choroid plexus was found to be occupied by a thrombus, which also occupied the veins of Galen and extended into the straight sinus. The basal ganglia also were found to be extensively altered, being to a great extent replaced by a tissue of dark brownish red colour and of soft and friable consistence. Subsequent microscopic examination showed this to be a result of hæmorrhagic infiltration, doubtless secondary to the thrombosis, especially of the veins of Galen. The internal capsules were unaltered. The other organs showed little change and none of any significance except that in the medulla, among the cells of the right vagus nucleus, there was a small hæmorrhage the result of a ruptured vessel, and this lesion the writers connect, reasonably enough, with the cessation of respiration some hours before death. The case is, as we have said, both interesting and important, and on account of the completeness of the examinations, both clinical and pathological, and the admirable manner in which it is reported it forms a valuable contribution to our knowledge of an obscure and probably not very common form of disease.

SANITARY BURIAL.

AT a meeting of the Church Burial, Funeral, and Mourning Reform Association, held last week at the Chapter House, St. Paul's-churchyard, the Archdeacon of London in the chair, papers were contributed by Sir F. Seymour Haden and Dr. Poore on the Earth-to-Earth mode of burial. The former stated that for the last ten years he had been burying animals, large and small, in the park attached to his house. By digging them up and examining them at intervals varying from one to five years he found that buried at the depth of four and a half feet—the depth required by the Government for the burial of human bodies—an interval of from three to four years was necessary for complete resolution; buried at the depth of one foot a year and a half had proved sufficient for the larger and a year or less for the smaller animals. On the other hand, a body not buried at all, but simply laid upon the ground with a covering of earth a foot thick over it, had completely disappeared (the bones excepted) in a year, the mound of covering earth, which had been sufficient to prevent all smell, retaining its shape, but when it was pressed with the foot proving to be hollow. The body had thus returned to the atmosphere in the shape of oxygen, hydrogen, carbon, and other perfectly harmless products necessary for the nourishment and growth of plants. He (Sir F. Seymour Haden) was amazed at the folly, not to say impiety, of any attempt to beat this provision of nature. Dr. Poore in his paper contended that if a body were buried in such a manner as to further in every way its complete dissolution the land would be ready after due interval of time to receive a second body, and that if the cemetery were systematically and sufficiently planted the earth would be purified and the air around freshened by the green leaves of a flourishing vegetation. The power which scientific burial gave of using the same ground repeatedly after due intervals of about ten years abolished the fear which had

been expressed with regard to the amount of ground allotted for burial purposes. An acre of land would prove an ample area for a burial ground in perpetuity for a population of ten thousand persons. Such a burial ground would prove a decided benefit to the living, as supplying in the midst of human habitations a breathing place which is so essential to the general well-being. It was resolved, upon the motion of General Lowry, seconded by the Rev. Septimus Buss, B.D., to ask the Government to formulate into a Bill the recommendations of the Committee of Inquiry on Death Certification appointed by the late Home Secretary at the request of this association; also to ask the Government to institute an inquiry into the effect upon the air above, the earth around, and the water below, of earth-to-earth burial, and other modes of interment.

FLOATING SANATORIA FOR TUBERCULOUS PATIENTS.

IT is some years since M. O. Motschoutkovsky first advocated the provision of floating sanatoria for people threatened with tuberculous disease or suffering from incipient forms thereof, but quite lately he has returned to the subject with renewed enthusiasm. In the opinion of this zealous hygienist the scheme he has theoretically organised down to the minutest detail is certain sooner or later to prove a triumphant success. According to his plan the isolation of a dangerous class can be effectively carried out with the least possible amount of discomfort to its members; and he likewise maintains that by a judicious timing of moves it will be easy to afford the sufferers an excellent chance of recovery under the very best and most favourable climatic conditions. The various anchorages on the list have one and all their special seasons when the meteorological conditions are all that can be desired, and inasmuch as these seasons by no means correspond with each other chronologically it will be practicable for a speedy vessel to transport her passengers from one to the other and thus enable them, as it were, to skim the cream of the collection. As soon as there is any likelihood of a change of weather at any given place the order will be given to go to whatever spot has been proved by experience to be the most appropriate at that particular time of the year. It goes without saying that the ships destined for this service should be specially constructed in accordance with all the most approved rules. For eight or nine months in each year they might be in constant employment, but during three months at least out of the twelve they should go into dock in order to be thoroughly cleansed and disinfected. M. Motschoutkovsky is quite convinced that no stationary hotel or sanatorium in the world could possibly surpass his floating palaces in either comfort or salubrity; while as regards constant variety and change of scene there can of course be no comparison. All that is required is a company with the necessary amount of capital, and at last there seems to be a prospect that such may be forthcoming. That well-known ship-owning association the Austrian Lloyds has placed an order for the construction of a large steamer which is to be specially adapted and fitted for the accommodation of invalids in need of fresh air and a favourable climate. The anchorages that so far have been selected are at Corfu, Alexandria, Palermo, Messina, Naples, Tunis, and Malta.

DEATH CAUSED BY BROMIDE OF POTASSIUM.

THE coroner for mid-Essex held an inquest on March 26th on the body of a man whose death appears to have been due to excessive indulgence in what is usually considered to be a comparatively safe drug—namely, bromide of potassium. Suffering from neuralgia, he had been in the habit of taking this salt in doses of from two to three drachms. The drug does not appear to have produced any of the usual symptoms of bromism, but may have caused the palpitation of the heart of which the deceased had frequently complained. During the night of March 23rd he felt very cold, gave two deep gasps, and almost immediately expired. The medical practitioner who was sent for stated at the inquest that he found the deceased quite dead, his mouth wide open, the eyes half closed, and the pupils somewhat dilated. A bottle containing the drug was on the table and examination showed that it was pure bromide of potassium. The witness attributed death to failure of the heart's action caused by taking the bromide. This case is interesting for several reasons. It proves in a marked manner the danger of taking any drug, however harmless it may be reputed to be, in large and repeated doses without the advice of a medical man. No doubt in this instance a medical attendant would have recognised the depressant action the salt was exerting upon the heart and would have discontinued its use. Even in the most modern works on therapeutics this danger is not mentioned, yet it is well known that all potassium salts cause "depression, shown by diminished energy of contraction of the cardiac muscle, with final stoppage in diastole" (T. Lauder Brunton). As this bromide is constantly administered in large and repeated doses the action of its basic constituent should always be borne in mind, and if signs of its depressant effect are observed its use should be abandoned, the bromide of some other base being selected if in other respects the action is beneficial. Many secret remedies for "fits" contain this drug in large quantities and it is evidently desirable that the public should be warned that their use is not unattended with danger.

SÆVÆ NOVERCÆ.

THE traditional stepmother has not apparently become quite extinct as a species if one may judge from two horrible cases reported this week from Hastings and Epsom respectively. At an inquest at the seaside town on an infant named Batt two witnesses alleged that the deceased's stepmother had said she wished "the little —— was dead," and a third said she saw her throw it up in the air and catch it with the remark, "Die, you little ——, and I will have your insurance money," a paltry forty or fifty shillings. The coroner said he had never seen a child with so many bruises, and the jury in the absence of direct evidence returned an open verdict, death having been the result of an injury to the head. They added their opinion that the woman's conduct had been inhuman and cruel and such as demanded some punishment which it was not in their power to give. The termination of the other case was a great deal more satisfactory. A woman named Mary Frost was charged, at the instance of the National Society for the Prevention of Cruelty to Children, with cruelty to her two step-children—a boy and girl of eight and nine years respectively. They were beaten severely with a stick while in bed, and after their father had gone to work, for "stealing" sugar. Then the woman put a poker in the fire, and when the poor children came down to breakfast they were made to stand up and put out their tongues. The woman then put the red-hot poker so close that the children put up their hands to save themselves and were severely burned. The woman pleaded that this was a recipe of her own to cure lying. This reads so unpleasantly that it is a relief to turn to the remarks of the chairman. He characterised the punishment as excessive and the threats as atrocious. A fine the magistrates considered would be no punishment, for her husband would pay it; the woman would have to go to prison for a month. Stepmothers, he added, must be taught to treat children properly.

INTRADURAL PUNCTURE OF THE SPINAL CORD.

IN a recent number of the *New York Medical Journal* Dr. Killiani records a case of some interest. A patient, forty-five years of age, fell on his back from a height of twenty feet. On admission to hospital an hour later he was still suffering from shock, and there was complete paralysis of both lower extremities and of the rectum and bladder. The anæsthesia reached to an imaginary line drawn through the third lumbar vertebra and a point about two centimetres below the umbilicus. There was a spot of extreme tenderness at the bend of the third lumbar vertebra, but no deformity or crepitus. There was slight ecchymosis here. The knee-jerks were lost. There was no change in the patient's condition in the next five days except that he had an attack of profuse and almost uncontrollable diarrhœa. On the fifth day after the accident the patient was rolled on his left side; a strong needle was inserted in the vertebral canal between the third and fourth lumbar vertebræ about 1½ centimetres from the middle line. Eight cubic centimetres of thick tar-coloured blood were removed. After this there was evident some restriction in the anæsthetic areas and a slight return of voluntary power in the extensors of the left thigh. The sphincters remained paralysed and the patient died suddenly four days after the puncture. An examination at the point of puncture showed that the needle had penetrated the subdural space, but had not wounded the cauda equina in any way. Dr. Killiani is of opinion that this simple procedure should be used in such cases with the object of relieving the spinal cord from the pressure of the effused blood.

THE EDWARD JENNER CENTENARY AT GLOUCESTER.

IT is extraordinary to note how at Gloucester, a town in which Edward Jenner resided for years, this centenary year of the discovery of vaccination is being kept. First, we find a board of guardians in fair weather when there was no small-pox about declaring themselves boastingly to be opposed to vaccination; then, frightened at their own mischievous default first recommending vaccination to the public by means of circulars and later, when still more frightened, actually turning right about face on all their former boasts and resolves and deciding to enforce the compulsory clauses of the Vaccination Acts. Secondly, we find that their experience—just 100 years too late—has been most bitterly bought, for, according to last week's papers, out of 90 deaths from small-pox in the hospital (there have been 118 in all in the city) 74 were in unvaccinated persons. Thirdly, we find that amongst this community which has been so long misled by the guardians there have within a few weeks been some 700 cases of small-pox, and that in the absence of any controlling vaccination the disease has seized that part of the town where the sanitary conditions are by no means worst, but where there was an undue proportion of unfortunate children who were unvaccinated. Fourthly, we find some thousands of pounds being spent in an attempt to check small-pox by hospitals, quarantining, and disinfection, but all in vain, for the disease goes on multiplying just the same; indeed, there were no less than 172 fresh cases last week. And, fifthly, we find that even some of those most responsible for the terrible loss of life among the unvaccinated are hurrying to get protection by vaccination for themselves. We leave those who have been so grievously injured by disease, maiming, and death, to apportion the blame. Here we only note with regret and shame that any British city, and above all Gloucester, should be in the state in which that city finds itself in the centenary year of Edward Jenner.

THE REGISTER OF MEDICAL STUDENTS.

NEXT in significance to the register of medical practitioners for any given year is the number of persons who have registered as medical students. The Medical Students' Register for 1895 has just been published, and shows that in that year no less than 1838 persons were so registered. Large as this number is—larger by three times than it was in the year 1865 when the registration of students commenced—it has often been exceeded. In the year 1879 for some reason or other, the number of registered medical students went up from 1699 to 2009. In 1891 the register contained the prodigious number of 2405, probably to be explained by the fact that the General Medical Council had decreed that students registering after Jan. 1st, 1892, should undergo a curriculum of five years' duration. The table at page 12 of the Students' Register shows that in twelve of the last seventeen years the number of medical students registering has been greater than in the last year. Still there is a great leap in the numbers of 1895 compared with the three preceding years. It is remarkable that, with the profession so crowded, the curriculum so expensive, and the examinations so numerous and difficult, so many students should still commence the study of the profession, though, of course, many whose names appear upon the register never really enter the profession itself. The percentage of registrations in the three divisions of the kingdom respectively for thirty years is as follows: in England, 49·96 per cent.; in Scotland, 30·34 per cent.; and in Ireland, 19·70 per cent. Of the 1838 who registered last year 955 registered in England, 575 in Scotland, and 308 in Ireland. It would seem that the increased severities of preliminary examination for medical graduates in the Scottish universities have not reduced the number of successful candidates.

AMONG the list of members of the Order of the Hospital of St. John of Jerusalem in England which, by the gracious sanction of Her Majesty the Queen, Sovereign Head, and Patron of the Order, appears in the *London Gazette* of Friday, March 27th, are the following names of members of the medical profession:—*Knights of Grace:* Surgeon-General W. G. N. Manley, C.B., V.C., Sir Edward Henry Sieveking, M.D., Mr. Thomas William Evans, M.D., Mr. Robert Brudenell Carter, F.R.C.S. Eng., Surgeon-Major-General Sir W. A. Mackinnon, K.C.B. (Director-General Army Medical Department), Inspector-General Sir James N. Dick, M.D., R.N., K.C.B. (Director-General of the Medical Department of the Navy), Surgeon-General Sir William Guyer Hunter, M.D., K.C.M.G., Sir Dyce Duckworth, M.D., LL.D., Mr. Thomas Wakley, F.R.C.S. Eng., Mr. William Collingridge, M.D., Surgeon-Major Lees Hall, A.M.S., Mr. William Bezly Thorne, M.D., Mr. Charles E. Milnes Hey, M.R.C.S. Eng., Sir William O. Priestley, M.D., LL.D., Deputy-Inspector-General Belgrave Ninnis, M.D., R.N., Inspector-General Henry Frederick Norbury, M.D., C.B., R.N., His Excellency Harry M. Crookshank Pacha, F.R.C.S. Edin., and Mr. Harry Pennington Hallows, M.D. *Esquire:* Mr. R. Vandeleur Kelly, F.R.C.S. Edin.

THE Duke and Duchess of York have arranged to be present at a grand *fête* which will be held in the building and grounds of the Middlesex Hospital, on July 1st, to commemorate the completion of the 150th year of the existence of the hospital and for the benefit of its new convalescent home at Clacton-on-Sea.

AT the instance of the Royal Commission upon Vaccination, which has been sitting for the last six years, and is now engaged in concluding its report, Dr. Sidney Coupland of the Middlesex Hospital has been instructed to inquire into, and report upon, the outbreak of small-pox in Gloucester.

AN influential committee has been formed to present Mr. George Knottesford Fortescue, the late superintendent of the reading-room of the British Museum, with an illuminated address expressive of the readers' hearty appreciation of the ability and courtesy which he ever manifested in the performance of the duties of his office. The committee would be very glad if any of the readers who are disposed to contribute a small sum towards this purpose, not exceeding 2*s.* 6*d.*, would kindly send such contribution to the treasurer, Dr. Samuel Rawson Gardiner, or to the honorary secretary, the Rev. Dr. Samuel Kinns, at his private address, 182, Haverstock-hill, Hampstead. There must be many of our readers who will be glad to learn of the opportunity that is thus offered to them.

MR. RICHARD BRAYN, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Superintendent of the State Criminal Lunatic Asylum, Broadmoor, in succession to Dr. Nicolson, appointed a Lord Chancellor's Visitor in Lunacy. Mr. Brayn was a distinguished student and scholar at King's College. He has done much good work in Her Majesty's prison service, having been medical officer to Parkhurst and Pentonville prisons, assistant surgeon to Portsmouth and Millbank prisons, and governor and medical officer to Her Majesty's Female Convict Prisons, Woking and Aylesbury.

THE Metropolitan Asylums Board has just issued its expected report on the results from the use of antitoxin in diphtheria cases under treatment in the hospitals under their control. The report, which is full of elaborate tables, reflects great credit upon the medical superintendents of the six hospitals by whom it is signed, for the statistics are well arranged and the conclusions arrived at are judiciously moderate in tone and are free from any attempt to overstate the case in favour of antitoxin.

MR. S. OSBORN, F.R.C.S., has put on the agenda paper for the next meeting of the Metropolitan Asylums Board, to be held on April 11th, the following motion: "That a vote of thanks be given to the medical superintendents of the metropolitan fever hospitals of the Board for their excellent report upon the use of Antitoxic Serum in the treatment of Diphtheria, which adds so materially to the history of treatment in this disease as to be beneficial to the whole medical profession."

AT a sessional meeting of the Sanitary Institute, to be held at the Parkes Museum on Wednesday, April 15th, a discussion will be opened by Dr. J. F. J. Sykes, medical officer of health for St. Pancras, on the Factory and Workshops Acts and the Powers and Duties of Sanitary Authorities with regard to Workshops.

THE President of the Local Government Board has appointed Dr. Frederick St. George Mivart to the temporary medical inspectorship in his department which became vacant by the promotion of Dr. Wheaton to permanent office.

Pharmacology and Therapeutics.

ERODIUM CICUTARIUM IN HÆMORRHAGE.

DR. KOMOROVICH, writing in the *Vrach* of Feb. 29th, states that he has made considerable use of "Hemlock stork's bill," erodium cicutarium, in uterine hæmorrhage with excellent results, often after better known drugs, such as ergot and hydrastis canadensis, had failed. He believes that the effect of the erodium is to increase the elasticity of the muscular fibres and thus to favour their contraction. In one case where a polypus was the cause of the hæmorrhage, after a fortnight's treatment the tumour was extruded into the vagina, which had never occurred with other drugs previously tried. Twenty of the cases where erodium succeeded after the failure of ergot and hydrastis were due to metritis, but others were dependent on myoma and abortion. The preparation used was an infusion made with 12 parts of water to 1 of the plants, to which a few drops of peppermint were added to improve the taste. Of this a tablespoonful was prescribed every two hours. In no case were any unpleasant by-effects produced, though sometimes the medicine was continued for some weeks. The active principles of the plant are stated to be "an ethereal oil, a bitter principle called geramin, and tannic acid. It has been used as an astringent diuretic in dropsy."[1]

DRIED THYREOIDIN IN CORPULENCE.

Dr. Jevzykowski reports in the *Noviny Lekarski* ten cases of corpulence which he treated with the dried thyreoidin manufactured by Merk with excellent results. This preparation was given in doses of from 5 to 8 grains per diem, 10 grains of it being the equivalent of a thyroid gland from a medium-sized calf. It did not give rise to any unpleasant by-effects such as have been noticed by some observers. In one case, however, that of a patient with fatty degeneration of the heart suffering from occasional attacks of an anginal character, after some 300 5-grain doses had been taken, which had reduced the weight about 25 lb., a considerable amount of dilatation of the left auricle was diagnosed and the heart's action was weakened; this state of things lasted for about a fortnight, but afterwards the patient completely recovered and lost all tendency to anginal attacks. Speaking generally, Dr. Jevzykowski found that a very considerable decrease of weight was produced by the treatment, at all events where the patients were willing to give up their previous habits of over-eating and over-drinking. In one case more than 40 lbs. were lost in two months, and in another 30 lb. in three months. Dr. Jevzykowski also tried the dried thyreoidin in a case of inveterate ichthyosis, the skin regaining its ordinary character after five weeks' treatment. When the thyreoidin was left off, however, the disease began to reappear; another course of the remedy in increased doses again improved it, and when the patient was last seen there were no signs of any recurrence.

SALICYLATE OF METHYL ADMINISTERED BY CUTANEOUS ABSORPTION.

The facility with which the skin can absorb guaiacol has been shown to be very considerable, so that after painting the surface with this substance no less than forty-five grains of it have been recovered from the urine, a much larger dose than could have been introduced into the system by means of the stomach. This fact led MM. Linossier and Lannois of Lyons to try the effect of administering an anti-rheumatic drug—salicylate of methyl, the substance which forms nine-tenths of the ordinary Wintergeen oil—in a similar manner. It becomes transformed into salicylate of soda in the blood and is eliminated by the urine in the form of salicylic acid. It can also be detected in considerable quantity in the fæces. The daily elimination takes place in a regular manner during the course of treatment and no effect is produced on the skin by the applications. When sixty grains were painted on the surface of the thigh as much as twenty grains of salicylic acid were recovered from the urine within twenty-four hours. Like guaiacol, salicylate of methyl is absorbed by the cutaneous surface in a state of vapour, as can be readily shown by surrounding the limb with a cylinder of wire gauze. The method of application is very simple: the liquid is spread on the limb by means of a brush with or without the aid of a medicine dropper; the part is then covered with a layer of oiled silk or other impermeable tissue, over which cotton wool is fastened, and the whole left undisturbed for four-and-twenty hours. Sixty grains can be readily applied in this way, but if a larger dose is desired some lint is rolled round the limb, which becomes saturated with it. The absorption appears to be retarded by mixing lard or vaseline with the salicylate of methyl. The great advantage of administering medicines by the skin is that there is less risk of disordering the stomach than is the case when they are introduced into that organ, but it is only possible to employ this method in the case of drugs that are of a decidedly volatile nature.

[1] Sydenham Society's Lexicon.

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER XIV.

Wakley's Two Crusades.—Their Personal or Impersonal Nature.—The Procuring of Hospital Reports.—Specimens of this Department in Early Numbers of THE LANCET.—*The Scope of these Reports.*

As has been indicated, Wakley now found himself with two avowed objects of attack—the administration of the metropolitan hospitals and the constitution of the Royal College of Surgeons of England—and against each he waged a relentless war. In the columns of THE LANCET he poured scorn upon the educational system by which the students were compelled to pay large fees to support hospital surgeons who were unwilling or unable to teach them; and upon the platforms at certain public meetings he held up to ridicule a learned corporation which withheld from its members all the benefits it had been created to bestow.

The personal or impersonal character of his attacks must be recognised because it was identical in either crusade. It would seem, on the one hand, that the College, being a corporation, was open to censure that was not personal, and that no grave want of taste could be discovered in the designation of its constitution and behaviour as corrupt, inept, and impertinent. The officers of the College had a charter whereby they were guided in the administration of its affairs, and while they conformed to their charter the hardest things that were said about the institution reflected in no way upon them personally. It would seem, on the other hand, that attacks upon hospital administration were compelled to be of a highly personal nature, inasmuch as they were bound to resolve themselves into reflections upon the surgical skill or intellectual grasp and verbal felicity of the gentlemen who operated or lectured as members of the various staffs. Wakley desired to treat both sets of abuses in the same way, clearly perceiving that they had a common origin in the want of unity and general apathy of the body of the medical profession. This body he desired to arouse to the two facts that their teachers failed in duty towards them, and that the College of which the majority of them were members mulcted them in fees but withheld from them all their rightful privileges. No one glancing over the columns of THE LANCET during its first decade will have a moment's hesitation in deciding that Wakley, having to frame a method of indictment suitable to both sets of abuses, deliberately, even wantonly, chose the personal one always. Such an opinion would be wrong. His writings teemed with personalities, his speeches derived much of their point from the same element, but he tried in every way to preserve a middle course in his indictments of the Royal College of Surgeons and of hospital officials. Into his criticism of the corporation he certainly introduced much that almost amounted to personal abuse of individuals, while it would have been possible for him to deal with the legitimate complaints of the members of the College in a more abstract manner. But his reflections upon the administration in the hospitals were whenever feasible directed against systems, and although names were constantly introduced, and although personal remarks formed the basis of much of his fault-finding, yet it was the administration rather than the administrators that he designed to attack. Wakley, in fact, compromised, which means much, for he was the firm foe of compromise. He directed his reflections upon the College in many instances against the authorities by name, whilst more naturally he should have called the charter to account. He saw that to animadvert against the constitution of the College would not appeal to the minds of his audience sufficiently. Abuse of men was readily understood, but the drift of reproachful criticisms of a legal instrument was not so easy to follow. If his uncomplimentary speeches had only been aimed at the charter of the College no widespread agitation against the existent state of affairs would ever have sprung from them. But so personal a turn was not necessarily given to his reflections upon the administration of the metropolitan hospitals, for his readers could thoroughly appreciate what constituted good hospital management, and no point and piquancy were given to his strictures by the unnecessary introduction of names.

It will be understood that Wakley's two separate campaigns were conducted simultaneously in THE LANCET. For the purposes of this narrative his unrelenting criticism of the metropolitan hospitals is considered first, while his actions towards reform in the College of Surgeons will be described later, but it should be remembered that he was engaged in a double war all the time, for the feeling that he had foes on either side accounted for the fierceness of some of his onslaughts, and his perpetual air of watchfulness.

The Hospital Reports which it was announced in the preface of the second volume of THE LANCET would give a true and unbiased record from week to week of the practice within the walls of the various metropolitan institutions were watched with apprehension by all concerned in the administration of the institutions. Repeatedly denying that there could be any other reason for desiring to preclude him from reporting the cases that came under treatment in the hospitals save fear—fear lest malpraxis should be exposed or mismanagement and nepotism be revealed—he persevered steadily in his announced intention. Week after week there appeared in THE LANCET elaborate accounts of operations, abstracts of clinical lectures and outspoken reflections upon administrative details, every hospital in the metropolis receiving these unsolicited attentions, each being treated in exactly the same spirit—unceremoniously. Hospitals, said Wakley, are public places, supported by the piety and wealth of members of the public for the cure of their poorer brethren. And as public places they shall have publicity.

Wakley had some difficulty at first in obtaining these reports. He was himself a regular attendant at the Borough Hospitals and the author of many of the early reports of operative procedures at their theatres, but he was most careful to make his survey of London practice from week to week a comprehensive one, so that he had to employ reporters to work for him. His difficulty in doing this was twofold. It was necessary that the man who reported for him should be thoroughly competent and privileged to go in and out of the wards at will. It was necessary also that he should be able to keep his identity unrevealed in view of the great opposition that had been manifested by many of the hospital surgeons to the publicity threatened for their work. Mr. Travers, for instance, had frankly told the students of the Borough Hospitals that he would urge the expulsion from the united classes of any student detected in supplying THE LANCET with reports of lectures or of operative proceedings, while Mr. Abernethy had expressed the sentiments of himself and his colleagues at St. Bartholomew's Hospital by terming the paid reporter of THE LANCET "a hireling," and bidding him stand forth to receive back his fees, which the medical school declined to keep having regard to their tainted source. But as against these facts the students recognised in THE LANCET a strong friend to their cause, so that Wakley obtained many offers of assistance

[1] Chapters I., II., III., IV., V., VI., VII., VIII., IX., X., XI., XII., and XIII. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, 22nd, and 29th, March 7th, 14th, 21st, and 28th respectively.

and had from the beginning many would-be contributors to choose from. It was his practice to employ and pay highly a senior student at each hospital to make regular reports for him, while he himself or some trusted member of the staff would make a round of the various operating theatres, dropping in now on this and now on that institution that he might judge for himself of the accuracy of his reporter's work.

All who possess or have access to the back numbers of THE LANCET can read for themselves the way in which these reports were done; and if they can subdue the innate savagery of man so far as to pass over the scathing accounts of some luckless surgeon's error to peruse the approving records of successful operations and well-directed innovations for the good of patient or student, they will certainly agree that from a journalistic point of view this department of THE LANCET formed a remarkable journalistic feat. Shorthand had not, under Taylor's system, reached its present pitch of excellence; telegraphy was unknown; London possessed no remarkable facilities for progression from place to place; no papers, medical or lay, gave information in the form of a diary, from which could be learned the day and hour at which in the interests of science a reporter ought to be in a given place—but in spite of all these drawbacks, and with the additional disability upon him that if his agents were discovered all obstacles would be officially placed in their way, Wakley produced week by week a record of doings within the jealously guarded walls of the metropolitan hospitals.

It will be well here to give the results of a brief perusal of the reports up to the year 1828. In this way an estimate of their value can be arrived at, for we shall be able to appreciate the amount of good that such a system of regular criticism must have worked, and the amount of indignation and vexation that such a violation of their privacy must have aroused in the officials.

In March, 1825, a man was admitted into St. George's Hospital suffering from pneumonia. He was bled in the arm by the dresser and during the little operation the brachial artery was wounded. The man was placed under one of the surgeons, who, on consultation with the physician, considered that the pulmonary trouble was too severe to warrant him in disturbing the patient by tying the brachial artery—obviously the only safe course to pursue under the unfortunate circumstances. A tight bandage was applied to the arm above the wound instead of a ligature being placed upon the vessel. The bandage remained three days untouched, when, the circulation having been occluded, mortification set in and the patient died. A coroner's jury brought in a verdict that the man died from the accidental opening of an artery in the arm *and from the want of proper attention*. Four months later a still worse case of malpraxis occurred at the same hospital. A man was admitted to the accident ward whose right knee was cut with a broken bottle. The house surgeon thought that an artery was severed and applied a tight bandage. This patient was under the care of the same surgeon, who did not, as it afterwards transpired, examine the knee himself, but left the bandages undisturbed, despite the fact that the leg was much swollen *above* the bandage. The bandage was not removed for five days, and when it was the limb was in a terrible condition. The man died and an inquest was held, at which it was elicited that the surgeon had trusted entirely to his house-surgeon, and that the younger gentleman's statements were not to be relied upon. A juror, in spite of the warnings of the coroner that he might be proceeded against for libel, persisted that there had been gross neglect in the treatment of the unfortunate man. The coroner pressed for a verdict without comment, but ultimately the jury returned that "the deceased received a cut on the knee by accident and from the effects of improper surgical treatment and neglect his death was produced."

Upon these cases THE LANCET made exceedingly severe comments and used freely the names of all concerned, holding their owners up to the contempt of the profession. Almost at the same time a man died in the Middlesex Hospital after an operation for strangulated hernia, and the writer of THE LANCET report of the case definitely accused the senior surgeon of the hospital of having, as a first count, neglected the case, so that the unfortunate man's plight was hopeless when the operation was undertaken, and having, as a second count, performed the operation in an exceedingly unskilful manner. The writer of the report finished by leaving discussion of the particular instance to say of the operative proceedings at Middlesex Hospital generally that it was the regular practice at Middlesex for the surgeon to wait before operating until all chance of recovery was gone, and that not more than one patient had recovered from an operation to relieve a strangulated hernia in the hospital for two years!

Several examples of malpraxis at Guy's Hospital and St. Thomas's Hospital were detailed at length. Two similar cases of compound fracture of the bones of the leg were admitted, one to the wards of Guy's Hospital and the other to the wards of St. Thomas's Hospital, in April, 1826, the treatment of the last of which was made the subject of severe comment. In the former the surgeon was stated to have delayed operating until too late and then to have amputated in a clumsy manner. In the latter he is taken to task roundly for having omitted to notice that the patient was going downhill fast owing to an extensive abscess having formed, unsuspected by everybody, on the back of his thigh. All the names are given in full, and the editorial comments are of the freest and bitterest.

The comments show the personal way in which Wakley dared to deal with these matters, and anyone who chanced to read them might be tempted to judge that he had no other way. As a matter of fact, however, his treatment of hospital administration was much more judicious than would be gathered from the perusal of the denunciatory articles.

"Nothing is more easy than to show," said Wakley, "that our hospital system is fundamentally wrong, from the surgeon to the surgery man and from the physician to the apothecary's apprentice. The manner in which the appointments are managed is the most nefarious and in utter violation of every principle of justice and common sense. For example, an advertisement announces the resignation of a medical officer of some hospital (which, by-the-bye, too seldom happens), and how do the rival candidates arm themselves for the contest? Not by trying to outvie each other at a public disputation, nor even at an examination in a committee-room, but by beating up the quarters of their brewers, their bakers, their tailors, and their other tradesmen, and in proportion as the candidates or their friends have influence with this class of persons, or, in other words, have a good *city connexion*, so are they according to the usual doctrine of chances secure of the vacant post. Now, then, men who can know nothing of the real qualifications of the candidates are the real electors of physicians and surgeons to public hospitals; and what is the consequence? What we too often see—that ignorant pretenders exclude men of sound talent, to the great injury of science and the great sacrifice of human life."

All of this Wakley set himself to demonstrate. The fact that the wrong men were chosen as medical officers to the hospitals could only be proved to demonstration by reporting examples of their failures. This he did regularly and in the unsparing manner of which examples are given above. But this only formed part of the work that he designed to carry out by the publication of the Hospital Reports. The general failings of the institutions as educational and administrative establishments also received uncomplimentary attention. That surgeon's pupils were

idle and abused the privileges that they had purchased; that dressers, having no proper supervision, very usually neglected their duties; that the house-surgeons being chosen from these gentlemen were frequently ignorant; that the nursing was often bad, and that no proper attention was paid to the diet of the patients; that the buildings of the hospitals were sometimes uncleanly and insanitary,—these and other unpleasant facts he brought to light by his elaborate system of reporting and treated with proper out-speaking. Can it be wondered at that within the walls of the hospitals, by all save the students for whom he fought, his name was a synonym for mischief-maker and agitator?

(To be continued.)

THE NEW PHOTOGRAPHY.

DIRECT VISION BY MEANS OF THE ROENTGEN RAYS.

BY J. MACINTYRE, M.B., C.M. GLASG., F.R.S. EDIN.

Shadows obtained of the Extremities and Trunk.

SINCE my last communication I have had several screens of calcium tungstate prepared, and as a number of experimenters have asked for information about the preparation of the crystalline form, the following notes may be useful. The last preparation I mentioned in THE LANCET was made for me by Messrs. Barrs and Sallock, but Mr. J. Frank Bottomley has kindly given me a larger quantity of the crystals and he prepares it after Manross's method.[1] It consists in fusing together the anhydrous sodium tungstate and calcium chloride, the latter in excess. The sodium chloride and excess of calcium chloride are dissolved out and crystalline calcium tungstate is left behind to be filtered off and dried. The crystals are a mixture of needles and octahedra, but the latter can only be seen with the microscope. This makes an excellent screen, but I still find the potassium platino-cyanide the best. The following cases for diagnosis have come under my observation since last week. In one, a suspected case of unreduced dislocation of the phalanx, Dr. Renton and Dr. Somerville saw distinctly (without photographs) that the parts were in proper position. In another I showed to several medical men an old fracture of the forearm with the fragments of the bones in an altered position. Following up my former experiments, I may say that not only do I find it extremely important to prepare the screen properly, but the distance of the Crookes's tube from the object must receive the most careful attention. By regulating the distance one can get very distinct shadows, but of course the further off the source of the "x" rays (i. e., the Crookes's tube) the less do we get fluorescence. I have now seen all the bones of the two extremities, and with such definition as to be quite practical for many surgical purposes. What is still more important to note, I have seen distinct shadows of the vertebral column and ribs. The sternum is also seen if the Crookes's tube be placed behind instead of in front. In the latter case I could see the shadows of the buttons on the clothes as well through the body. It is an easy matter to penetrate the head, but, as I mentioned in the last article, we still need further improvement in the source of the rays. A little more power from the tube is what we now require. One of the most beautiful results I have got was shown to several of my friends during the week when the different movements at the elbow were seen. These could be distinctly made out and the movements of extension and flexion were extremely plainly demonstrated.

Mr. George Heaton, F.R.C.S. Eng., surgeon to the General Hospital, Birmingham, sends us the following account of a case where a foreign body in the wrist was localised and successfully removed by the aid of Roentgen's method of photography.

"A man aged thirty-two years, whilst at work on March 18th was struck by a piece of metal on the ulnar side of the left wrist, which made a small wound which bled freely. He was removed to the General Hospital, Birmingham and the wound examined carefully by the house surgeon on duty. No foreign body could be detected either by palpation or with the probe. The wound was dressed antiseptically and the arm kept at rest in a splint. On March 25th a photograph (which I enclose) was taken by Mr. Hall Edwards, exposure of one minute and forty-five seconds being given. The foreign body can be seen distinctly lying in the palmar aspect of the semilunar bone. Even after localisation by Roentgen's method the foreign body could not be felt through the unbroken skin. The same day an anæsthetic was administered and a small incision made in the situation, as shown in the photograph. The foreign body, a sharp thin piece of steel, was found at once lying deeply amongst the flexor tendons of the wrist over the semilunar bone. The wound was closed and has since healed."

*** We do not reproduce the photograph, as it presents no features differing from numerous other photographs that have appeared in our pages and elsewhere. The foreign body is, however, very well shown in it."—ED. L.

[1] Liebig's Annalen, vols. lxxxi. and lxxxii.

EXPERIMENTAL RESEARCHES OF THE ROYAL COMMISSION ON TUBERCULOSIS.

II.—MILK.[1]

THE danger to public health arising from the consumption of tuberculous milk has been generally, and probably correctly, estimated to be considerably greater than that which arises from tuberculous meat. Whether the danger is confined to milk from cows with tuberculous udder disease or exists also in milk from tuberculous cows with normal udders is a matter which has given rise to considerable discussion. Some cases have been reported by Professor Bang and others where a tuberculous cow with an apparently healthy udder gave demonstrably infective milk. A large number of such cases would doubtless be conclusive on this point, but so far very few have been recorded, and the possibility that in these cases the bacilli owed their existence in the milk to undetected tuberculous deposits in the mammary glands must not be overlooked. The experimental researches of the Royal Commission on Tuberculosis tend to show that tuberculous udder disease must be established before the milk becomes infective. In Part III. of his inquiry, Dr. Sidney Martin gives particulars of experiments with milk of eight cows, one with "mild," five with "moderate," and two with "advanced and generalised" tuberculosis—all shown to be free from udder disease post mortem. The milk of two cows was distinctly abnormal: one with "advanced and generalised" tuberculosis gave a yellow milk with considerable excess of fats and deficiency in lactose; another with "moderate" tuberculosis, gave milk with a large excess of albumin and a corresponding deficiency in casein. Milk of the remaining six cows was in no case markedly abnormal to chemical and physical tests. Tubercle bacilli were not to be found in the milk of any of the eight cows. The milk of each was tested by inoculating experimental animals; of a total of twenty-eight guinea-pigs and rabbits thus inoculated none developed tuberculosis. It was also used to feed a number of guinea-pigs, each guinea-pig receiving about a litre of milk. In addition, milk of each of five of these cows was given as food to pigs, which are peculiarly apt to contract tuberculosis from feeding. The smallest amount of milk consumed by any one pig was seven and a half litres, while as much as fifty-six litres (and this from a cow with "advanced and generalised" tuberculosis) was given to another. None of the pigs or guinea-pigs thus fed became tuberculous.

Two other tuberculous cows had been purchased in the belief that they had tuberculous udder disease, but examination of the udder post mortem showed that the affection was a non-tuberculous interstitial mastitis. The milk of these cows similarly tested proved to be uniformly non-infective. Milk of cows with tuberculous udders, on the other hand, was found to be extremely virulent. Five such cows were obtained, twenty-one animals were inoculated with milk from one or other of them, and all became tuberculous. In three cows the virulence of the milk proved as great in the

[1] No. I. (Meat) was published in THE LANCET of Feb. 29th, 1896.

feeding experiments, for in each case all the animals fed became tuberculous. Tubercle bacilli were found in the milk of each of these three animals. Of the remaining two, the milk of one was infective to three out of the nine guinea-pigs and to the one pig fed with it, while the milk of the other was consumed by two guinea-pigs only, both of which remained healthy. Bacilli had not been found in the milk of either of the last two cows, although in each case the infectivity of the milk had been demonstrated by inoculation. The disease produced in the test animals was in every case a rapid form of tuberculosis.

"The milk of cows with tuberculosis of the udder possesses a virulence which can only be described as extraordinary. All the animals inoculated showed tuberculosis in its most rapid form, such as it is seen after inoculation with a recent tubercular lesion, and this was the case even with Cows 8 and 24, the milk of which gave irregular results with feeding, so that in one case (Cow No. 8) it was possible to diagnose as tuberculous a local lesion produced by milk injection, even though the guinea-pig lived only nine days, tubercle bacilli being found in the thickened tissues at the seat of injection."

Dr. Martin found no diminution in virulence to test animals when this milk was diluted to four times its bulk with healthy milk; indeed, a dose of even 0·05 to 0·1 c.c. diluted with healthy milk was sufficient to produce tuberculosis. He also experimented with skimmed milk, buttermilk, and butter prepared from tuberculous milk. Each of these products produced well-marked tuberculosis both by feeding and by inoculation in all the animals experimented on, and it is important to note that the virulence of skimmed milk, butter milk, and butter was not notably decreased by a previous addition of healthy milk to the tuberculous milk employed in their manufacture.

We do not get much information from these inquiries as to the physical characters of the tuberculous udder. Dr. Martin observes:—

"Tuberculosis of the udder is a slow, painless growth. A disease of the udder which is slow in development, taking weeks or months to affect a large portion of the udder, and occurring in a tuberculous animal, is in all probability tuberculosis. Anything more definite than this cannot be said."

Absence of tenderness in the growth and enlargement of the supra-mammary glands are neither diagnostic of the nature of the enlargement. As regards the milk itself, diminution in its quantity, although common in tuberculosis of the udder, frequently occurs in other morbid conditions of the cow; chemical analysis in certain cases can demonstrate some abnormality, but does not in any case indicate that the abnormality is due to tuberculous udder. Examination of the milk for bacilli might have been expected to demonstrate the existence of the disease in all cases, yet in the two cows already referred to repeated examination for bacilli, with and without the aid of the centrifugal machine, was made without result, the milk from both cows being none the less infective to test animals. In fact, Dr. Martin shows, if tubercle bacilli are not found the only trustworthy test is the inoculation of experimental animals with the suspected milk. Obviously this test is not one which can be readily applied by the farmer or veterinary surgeon to cases of suspected disease of the udder. Dr. Martin recommends, therefore, that a cow affected by any form of disease of the udder should be excluded from the dairy farm, not only where there is an obvious enlargement (of whatever nature) in any part of the udder, but also when the milk from one or more quarters is observed to fail either in quantity or quality. The diseased cow thus set apart can then be thoroughly examined by a person competent to apply the necessary tests. But, in reality, the question is a wider one, for any tuberculous cow, no matter what the stage of its tuberculosis, is liable to have its udder affected. As pointed out in these inquiries, the onset of udder tuberculosis is insidious and may be very difficult of detection. Nothing short of a knowledge of all the tuberculous cows of a dairy, their separation from other cows, and a frequent inspection by competent observers would serve to minimise the risk of the milk they supply—if, indeed, the milk of any tuberculous cow is allowed to be consumed at all.

The effect of heat on tuberculous milk forms the subject of an elaborate research by Dr. Sims Woodhead (Inquiry III., Parts 8 and 9). He used for experiment both milk from cows with tuberculous udders and milk rendered tuberculous artificially by intimate admixture of tuberculous sputum or of portions of tuberculous organs very finely divided. He found that of the two the natural tuberculous milk in the raw state proved to be more uniformly infective. Dilution with healthy milk appeared in some instances to reduce, and in others to make no difference to, the infectivity of tuberculous milk. Dr. Woodhead accepts as proved that raising milk to 100° C. even for a single instant will completely kill tubercle bacilli contained in it; and he adopts the explanation of Hodenpyl and Prudden and others that "tubercles" produced in animals by inoculation of boiled tuberculous milk are the result of necrosis round the bodies of dead bacilli and do not contain the living microbe. In his own experiments he kept tuberculous milk (natural or artificial) in a water-bath specially contrived for the purpose for given periods of time at each of a long series of temperatures from 50° to 90° C. He then tested the milk so treated in each instance by inoculating and by feeding test animals with it. The results of intra-peritoneal injection of guinea-pigs are instructive. Here the effect of heating the milk to a temperature short of 100° C. was manifested in two ways. In the first place such partial heating rendered the milk capable of infecting only a small proportion of the test animals, whereas the raw milk had rendered every animal experimented on tuberculous. The proportion of animals attacked was smaller as the temperature to which the milk was raised was greater; it was also smaller as the time at which the milk had been kept at a particular temperature was longer. In the second place the test animals attacked under these conditions suffered from a slowly progressing and limited tuberculosis, the slowest progress and the most marked localisation of lesions being obtained with milk heated to the highest temperature and for the longest time short of altogether destroying its infectivity. Dr. Woodhead found evidence of attenuation of virulence in the way indicated when the milk had been kept for some time at even as low a temperature as 50° C.

Although the character of the disease produced was perhaps modified, and although in some cases the proportion of test animals affected was small, tuberculosis was nevertheless produced in guinea-pigs by intra-peritoneal injection of milk which—to instance a few of Dr. Woodhead's results—had been heated momentarily to 90° C., heated for twenty-two minutes to 75° C., for half an hour at 70° C., three hours at 65° C., or twelve hours at 50° C. After heating for a longer time at each of these temperatures the milk appeared innocuous to guinea-pigs. It was found, however, that the results of feeding pigs with tuberculous milk afforded a still more delicate test of infectivity than inoculating guinea-pigs. The results of feeding pigs are noteworthy and may be gathered from Dr. Woodhead's table (lxxv).

Feeding Experiments with Pigs, using Artificial Tuberculous Material heated to Different Temperatures for Various Times.

Temperature.	5 min.	2½ min.	10 min.	15 min.	20 min.	30 min.	40 min.	45 min.	1 hour.
60° C.						+			+
65° C.					+		+		
70° C.		+		+		-		+	
75° C.	+		+	+					
80° C.	+		+						

+ = Where experiments gave positive results.
- = Where experiments gave negative results.
Where spaces are left blank no experiments were made.

From this table it will be observed that artificial tuberculous milk kept at 80° for ten minutes or for a quarter of an hour at 75° still remained infective when given to pigs as food. For any indications to the contrary furnished by these experiments, the infectivity to pigs may still exist in milk raised to higher temperatures and heated for longer periods. This is all the more important as the analogy between the manifestations of the modified tuberculosis produced in the pig by this imperfectly heated milk and the "strumous" glands and other chronic tuberculous lesions of children and adults is an exceptionally close one—a point fully insisted upon by Dr. Woodhead. His experiments suggest doubts of the ability of several processes applied to milk under the name of "sterilisation" or "Pasteurising" to destroy the infectivity of tuberculous milk to man.

KINGSBURY v. HART.

THE Fylde Medical Society, of which Dr. Kingsbury is the Hon. Secretary, held a special meeting in Blackpool on March 20th, 1896, to hear an explanation from him of the charges against him in the *British Medical Journal* of Jan. 18th, 1896, deeming it more satisfactory that his conduct should either be vindicated or condemned by members of his own profession than that the verdict of a lay jury, already given in his favour at the Manchester Assizes, should be accepted as final.

Dr. Kingsbury dealt fully with the anonymous accusations of "Ethics," and the comments thereon by the editor of the *British Medical Journal*, and gave a detailed account of his long connexion with both the hydropathic establishments of Blackpool, and answered all the questions submitted to him by the members of the society.

Mr. Day proposed: "That, having heard the explanation given by Dr. Kingsbury, the Fylde Medical Society hereby unreservedly accepts the same as satisfactory." Mr. Eason seconded the proposition and expressed his perfect confidence in the hon. secretary, who had always taken the keenest interest in maintaining the ethics of the profession. The resolution, having been supported by Dr. Brown, Dr. Blundell, Mr. Dunderdale, Mr. Lenihan, and Mr. Calvert, was carried unanimously.

Dr. Stott then proposed: "That, in the opinion of this society, the attack of 'Ethics' upon Dr. Kingsbury and the method adopted by 'Ethics' in making such attack are to be strongly condemned." Dr. McIntosh, having seconded this resolution, it was also carried unanimously.

Dr. Kingsbury then read a letter dated March 14th, 1896, which he had addressed to the editor of the *British Medical Journal* the moment that gentleman had publicly stated that he accepted the Manchester jury's verdict as a just one. To this letter an answer was received from the assistant editor, under date March 19th, 1896, saying: "Your letter of March 14th, addressed to the editor of the *British Medical Journal*, has been very carefully considered, but it has appeared to be on the whole undesirable to publish it in the *British Medical Journal*. In compliance with your request the letter is herewith returned."

A resolution was then proposed by Mr. Richardson, seconded by Mr. Lenihan, and unanimously carried, condemning the action of the *British Medical Journal* in refusing to publish Dr. Kingsbury's letter of March 14th, 1896.

At the conclusion of the meeting Dr. Kingsbury received the warmest congratulations of his medical brethren.

THE ANGLO-EGYPTIAN NILE EXPEDITION.

No time is being lost in vigorously prosecuting this expedition. The passage of troops and war material up the Nile continues to be actively carried on. It is expected that the whole of the force composing the Dongola column will be concentrated at Sarras, thirty-five miles beyond Wady Halfa, within a month. The railway to Akasheh is being pushed on and troops and provisions are being rapidly transported to the front. Those of our readers who are acquainted with the way in which the Egyptian authorities pack their troops on board steamers and barges will readily understand the large numbers that can be transported under such circumstances compared with those of British soldiers. So far as the present expedition has gone, the organisation and transport arrangements have been working extremely well. Assouan has been, and still is, a scene of great activity, and a large camp exists at this station. Sir H. Kitchener, the Sirdar of the Egyptian Army, is organising the expeditionary force at Wady Halfa, where a British regiment should have arrived by this time. A body of Dervish cavalry recently reconnoitred in the vicinity of Akasheh, but retired on being fired upon by the Egyptian troops. The news of the advance is said to have caused great excitement at Dongola. There are now three battalions of Soudanese infantry, with several squadrons of cavalry, a battery of artillery, and a camelry corps at Akasheh, and additions to the force at this station are being rapidly made. The health of the troops is stated to be very good so far. The heat is only great at midday, but the hot wind from the south-west—the khamsun—is due at this season and the temperature and discomfort, and probably the inefficiency from sickness, may be expected to increase on its appearance. Large quantities of medical and other stores for the hospital service have been forwarded with the expeditionary force, and with the number of medical officers already in Egypt and those arriving there from this country it is believed that the expedition will be well provided in these respects. The military authorities in Egypt have had a good deal of experience of military expeditions up the Nile and are practically acquainted with their requirements. The major portion of the force, consisting of Soudanese and Egyptian troops, are accustomed to and stand the climate well; but this cannot, of course, be said of the British troops, although the results of our previous expeditions have shown that with proper care and hygienic precautions our soldiers withstand the climate much better than might be anticipated. Everything connected with field service arrangements in these respects is much better understood, and much greater care is taken nowadays in regard to health and sanitation, than was formerly the case. Still, as everybody knows, the heat in these regions is very great during the approaching season, and a certain amount of disease must inevitably follow.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Crewe Urban District.—Mr. Herbert Jones, the medical officer of health of this important district, which has now a population of some 37,000, is given by the sanitary authority somewhat difficult tasks to perform. To cope with an epidemic of scarlet fever, or, indeed, of any other disease, without the means of isolation, or even the assistance of the Notification Act, is a thankless and hopeless labour from which we should ask to be excused. Yet this was the task which Mr. Jones was left to carry out in 1895. School closure had to be resorted to in order to check the spread of the disease, but, as Mr. Jones observes, this step really took away from him the only source of information as to the distribution of the disease which in the absence of notification he possessed. It is obviously impossible for the many points which suggest or contra-indicate school closure in any given epidemic to be ascertained without notification, and we suspect that much injustice is done to elementary education by what must, in the absence of notification, be more or less a step in the dark. The exact distribution of cases in a district is one of the essential pieces of information with regard to any intelligent application of the powers vested in the medical officer of health as to school closure. In the matter of isolation accommodation we are glad to be able to record that the town council has now obtained the consent of the Local Government Board to borrow the necessary funds, and that there is every prospect of the town being shortly provided both with a hospital for small-pox and one for other infectious diseases. The matter of notification still seems to hang fire, in spite of the fact that Mr. Jones has urged on the sanitary committee upon numerous occasions the necessity for the adoption of the Act. The committee seem to think that it will be well to delay notification until after the erection of the fever hospital; in other words, they advocate in principle the plan of building stables before the number of horses which they will be called upon to provide for is known.

Kingston-upon-Thames Urban District.—Mr. Beale Collins reports that the most important event of the year 1895 was the severe frost which brought home to the community of his district the disabilities under which they labour in not possessing the control of their own water-supply. Mr. Collins states that during the stoppage of the water by frost he measured the depth of the main in a certain road and found it to be but eight inches from the surface, and in no place in the road in question did the pipes when uncovered appear to be at a greater depth than eighteen inches. In the matter of isolation accommodation the sanitary authority has purchased a site, and Mr. Collins urgently impresses

upon the corporation the necessity for the erection of a hospital; he suggests that arrangements should be made with adjoining authorities for the provision of joint accommodation for small-pox. In order to diminish the risks of infection through the agency of books from the public library, it has been arranged that the inspector of nuisances shall forward to the librarian the names of all cases of infectious disease notified. When the patient recovers the books are returned after disinfection to the librarian. One case of typhoid fever in Kingston was attributed to the consumption of oysters.

Kensington Sanitary District.—In his last monthly report Dr. Dudfield draws attention to an allegation which has been made in some quarters that the district of Kensington is suffering from "over-inspection." In order to refute this extravagant statement he has drawn up a short report showing the average number of persons to each inspector in the several metropolitan sanitary districts. He shows that in three districts there is one inspector to less than every 10,000 persons; in eleven districts there are between 10,000 and 15,000 persons to each inspector; in eleven other districts between 15,000 and 20,000; in twelve districts between 20,000 and 25,000; in three districts between 25,000 and 30,000; and in the remaining two districts there are more than 30,000 persons to each inspector. Kensington has one inspector to every 24,224 persons.

Ampthill Rural District.—Mr. C. M. Fegen reports two outbreaks in his district, one of scarlet fever and the other of measles, which diseases he regards as having been introduced by "holiday children," and he advises that some steps be taken to guard against these annual visitors acting as introducers of infectious disease. He thinks that children should not be allowed to be sent from houses where infectious disease has been present during the previous six weeks, but this seems to us a little impracticable. Mr. Fegen in discussing questions of water-supply refers to the risks that are run in cases of draw-wells from the use of pails which are not kept solely for the purpose. He advocates the use of pumps, or where these are not possible the provision of a permanently fixed pail for each well.

Maldon Rural District.—Dr. Thresh, in his annual report for 1895, draws attention to the menace which exists to the public health in this district from the presence in it of the "Peculiar People," whose faith in supernatural agencies leads them to neglect the assistance of natural laws as expressed in the practice of the physician, and as a consequence the disregard of the provisions of the Notification Act. Dr. Thresh records an instance in which two children died suddenly under conditions strongly suggestive of diphtheria. No medical man was called in, and the coroner, after causing inquiries to be made, held no inquest in either case. One case was registered as "due to influenza and sore-throat," the other to "tubercular disease since birth." We would certainly deal gently with most questions involving the conscientious scruples of any sect; but a matter like this, which in numerous ways threatens the public health—to say nothing of the gross injustice to individual children,—cannot be lightly treated, and we should be glad to see an example made of some of these Essex "Peculiars." Dr. Thresh adds that as trouble has arisen in other parts of Essex from the failure of these misguided people to call in a medical man he proposes to deal with the subject fully in his reports on this county.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6611 births and 3099 deaths were registered during the week ending March 28th. The annual rate of mortality in these towns, which had declined in the three preceding weeks from 20·7 to 19·2 per 1000, further fell last week to 18·8. In London the rate was 17·9 per 1000, while it averaged 19·3 in the thirty-two provincial towns. The lowest rates in these towns were 11·7 in Brighton, 12·2 in West Ham, 13·2 in Burnley, 13·6 in Nottingham, and 13·7 in Swansea; the highest rates were 23·7 in Liverpool, 24·3 in Birkenhead, 25·6 in Preston, and 26·1 in Manchester. The 3909 deaths included 631 which were referred to the principal zymotic diseases, against 636 and 578 in the two preceding weeks; of these, 267 resulted from measles, 177 from whooping-cough, 87 from diphtheria, 41 from scarlet fever, 31 from diarrhœa, 27 from "fever" (principally enteric), and 1 from small-pox. No fatal case of any of these diseases was recorded in Brighton; in the other towns they caused the lowest death-rates in Portsmouth, Blackburn, Nottingham, and Preston, and the highest rates in Birmingham, Salford, Oldham, Sunderland, and Birkenhead. The greatest mortality from measles occurred in Bristol, Manchester, Salford, Sunderland, Oldham, and Birkenhead; from scarlet fever in Bolton; and from whooping-cough in Cardiff, Derby, Leicester, Salford, and Sheffield. The mortality from "fever" showed no marked excess in any of the large towns. The 87 deaths from diphtheria included 51 in London, 5 in Birmingham, and 3 each in West Ham, Bristol, Liverpool, Manchester, Leeds, and Hull. One fatal case of small-pox was registered in Bradford, but not one in London or in any other of the thirty-three large towns. There were 33 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, March 28th, against 52, 42, and 43 at the end of the three preceding weeks; 2 new cases were admitted during the week, against 13, 4, and 9 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2744, against 2857, 2764, and 2773 on the three preceding Saturdays; 224 new cases were admitted during the week, against 244, 217, and 277 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the three preceding weeks from 433 to 345, further fell to 285 last week, and were 166 below the corrected average. The causes of 48, or 1·2 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Salford, Bradford, Leeds, Newcastle-upon-Tyne, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Wolverhampton, Birmingham, Birkenhead, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·6 per 1000 in each of the two preceding weeks, declined again to 18·9 during the week ending March 28th, and almost corresponded with the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·8 in Dundee and 16·8 in Greenock to 20·8 in Glasgow and 25·6 in Perth. The 552 deaths in these towns included 21 which were referred to whooping-cough, 14 to diarrhœa, 6 to scarlet fever, 6 to measles, 4 to "fever," 1 to diphtheria, but not one to small-pox. In all, 52 deaths resulted from these principal zymotic diseases, against 72 and 70 in the two preceding weeks. These 52 deaths were equal to an annual rate of 1·8 per 1000, which was 1·2 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 35 and 29 in the two preceding weeks, further declined to 21 last week, of which 13 occurred in Glasgow and 4 in Aberdeen. The 14 deaths from diarrhœa corresponded with the number in the preceding week, and included 8 in Glasgow. The fatal cases of scarlet fever, which had been 6, 7, and 4 in the three preceding weeks, rose again to 6 last week, all of which were recorded in Glasgow. The fatal cases of measles, which had increased from 6 to 13 in the three preceding weeks, declined again to 6 last week, and were all registered in Glasgow. The 4 deaths referred to different forms of "fever" showed a decline from those returned in recent weeks, and included 2 in Glasgow. The deaths from diseases of the respiratory organs in these towns, which had been 116 and 115 in the two preceding weeks, declined to 107 last week, and were 92 below the number in the corresponding week of last year. The causes of 23, or more than 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 28·3 and 25·4 per 1000 in the two preceding weeks, further declined to 24·8 during the week ending March 28th. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the city averaged 25·3 per 1000, the rate during the same period being 19·5 in London and 17·7 in Edinburgh. The 166 deaths registered in Dublin during the

week under notice were within 4 of the number in the preceding week, and included 7 which were referred to the principal zymotic diseases, against 10 and 7 in the two preceding weeks; of these, 3 resulted from diarrrhœa, 2 from scarlet fever, 1 from diphtheria, 1 from "fever," but not one either from small-pox, measles, or whooping-cough. These 7 deaths were equal to an annual rate of 1·0 per 1000, the zymotic death-rate during the same period being 3·6 in London and 0·6 in Edinburgh. The 3 fatal cases of diarrhœa exceeded the number recorded in any recent week. The deaths referred to scarlet fever, which had been 4 and 1 in the two preceding weeks, rose again to 2 last week. The 166 deaths in Dublin last week included 21 of infants under one year of age, and 40 of persons aged upwards of sixty years; the deaths of infants slightly exceeded the number in the preceding week, while those of elderly persons showed a decline. Five inquest cases and 3 deaths from violence were registered; and 61, or more than a third, of the deaths occurred in public institutions. The causes of 10, or rather more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-CAPTAIN CATHCART GARNER, M.B., is seconded for service with the Egyptian Government.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Colonel A. F. Churchill, A.M.S., is brought on the Administrative Medical Staff of the Army, vice Surgeon-Colonel T. Maunsell, appointed Principal Medical Officer, Malta. Surgeon-Major John Anderson becomes Joint Civil Surgeon, Simla, when Surgeon-Major Cunningham vacates that appointment this month. The latter officer goes to Patiala in place of Surgeon-Major Owen, who goes home on leave. The services of Surgeon-Captain W. C. Sprague, M.D. (Bombay), are placed temporarily at the disposal of the Government of Bombay. The services of Surgeon-Captain P. C. Gabbett (Madras), are placed at the disposal of the Government of Madras. Surgeon-Captain A. A. Sutton, A.M.S., has been transferred from the Poona district to the Aden district.

NAVAL MEDICAL SERVICE.

The following appointment is announced:—Surgeon P. B. Handyside to the *Nix*.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain James Denholm, M.B., having resigned his Volunteer appointment, ceases to be an officer of the Army Medical Reserve of Officers.

THE ARMY MEDICAL SERVICE.

The following memorial from the Medical Faculty of Queen's College, Belfast, as been sent to the Marquis of Lansdowne, Secretary of State for War:—

"MY LORD,—The Medical Faculty of the Queen's College, Belfast, respectfully submit for your Lordship's consideration their views on the Army Medical Service, and beg to submit certain changes in this service advocated by the members of the deputations from Trinity College, Dublin, and the Royal College of Surgeons of Ireland, which had the honour of a personal interview with your Lordship on March 9th. The causes that have led to the very marked decrease in the number of candidates from Ireland have engaged our serious attention, more especially as formerly a large number of the students who received their education in the Queen's Colleges entered the Army Medical Service; indeed, fully one-third of the present medical officers in the army holding Irish degrees or diplomas were educated in the Queen's Colleges of Ireland. Our experience regarding the causes that have given rise to the diminution in the numbers of our students now seeking entrance into the Army Medical Department is similar to that stated by the deputations already mentioned. The most important cause of the present unpopularity of this service is undoubtedly the position which the army medical officers hold relative to the other branches of the army, and we would support most strongly the establishment of a Royal Medical Corps. The conditions in the Royal Medical Department are, as a rule, very unfavourable to scientific work by the army medical officers, more especially in the case of those stationed abroad, and we consider that every encouragement and assistance ought to be given, so far as is consistent with the public service, to officers anxious to engage in original research or to keep themselves abreast of the constant advances in medical science. The claims of Ireland and Scotland to representation on the board of examiners for the army medical examinations are so evident and were so ably and fully stated by the deputations from Dublin that it is unnecessary for us to enlarge upon this important reform. Nothing could be more calculated to encourage our best students to enter for the army than the conviction that the board of examiners was thoroughly representative of the various medical institutions in the three Kingdoms, and that it was both unnecessary and useless to spend extra time and money in cramming the special methods or views of any particular school. We believe that the adoption of these changes would remove the serious discontent which at present exists amongst the army medical officers, and would restore the former popularity of the Army Medical Department amongst our students.

Signed on behalf of the medical faculty, by

JOHNSON SYMINGTON, M.D., F.R.C.S. Edin.,
Professor of Anatomy, and Secretary to the Medical Faculty, Queen's College, Belfast.

THE ASHANTI HONOURS.

We subjoin a list of promotions ordered by Her Majesty the Queen as a recognition of the services during the recent Ashanti campaign of the medical officers named:—Surgeon-Colonel William Taylor, M.D., to be Surgeon-Major-General; Surgeon-Major William Owen Wolseley to be Surgeon-Lieutenant-Colonel; Surgeon-Captain Walter Calverley Beevor, M.B., to be Surgeon-Major; and Surgeon-Captain James Maher to be Surgeon-Major. In view of the fact that Her Majesty recently sent a very gracious and gratifying message of thanks to those medical officers who rendered service to His Royal Highness Prince Henry of Battenberg during his illness, and having regard to the successful issue of the campaign from a medical as well as from a military point of view, we should have liked to have seen some honorary rewards also conferred on some of the medical officers. For the success of the undertaking the country is greatly indebted to the Army Medical Service for the wisdom and foresight with which the hygienic and hospital requirements were designed and to the medical officers of the expedition for their very successful arrangements and the great zeal and care with which they fulfilled their duties. The very unhealthy nature of the climate and the disastrous effects on the health of the troops which might have taken place had those arrangements been defective or bad is universally admitted, and it was fitting, therefore, that the excellent services rendered by the Army Medical Staff on this occasion should be recognised. We have to congratulate the above officers on their well-earned promotion.

Correspondence.

"Audi alteram partem."

"THE OBJECTS AND LIMITS OF OPERATION FOR CANCER."

To the Editors of THE LANCET.

SIRS,—Without commenting upon the tone or nature of Mr. Watson Cheyne's letter in THE LANCET of March 28th I would first hasten to assure him that it was only lack of opportunity and not disrespect or want of interest that prevented me from attending the Lettsomian Lectures at the Medical Society of London. I am flattered to think he should have noticed my absence from a large and representative audience. I have read Mr. Cheyne's lectures with that close attention which they well merit and which is needful for one who is still a student in these matters to understand what he has written upon a very complicated subject. Differences of opinion are allowable regarding such matters as the "cure" of cancer, and I am glad to know that I do not stand alone in the opinions I expressed. These lectures mark an important period in the surgery of malignant disease. They are valuable as much from their source as from the labour expended in collecting large masses of statistical details for future reference. I still think they would have lost none of their value and interest among those members of the profession who, even at the risk of being called "sententious," are not afraid to think and speak for themselves, if the term "cure" had been used in the more restricted sense indicated.

I am, Sirs, yours truly,

March 30th, 1896. A. MARMADUKE SHEILD.

THE CLINICAL EXAMINATION OF THE BLOOD.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 28th I notice a leading article dealing with the clinical examination of the blood. The subject is one of considerable importance in practical medicine, as it not infrequently happens that most valuable

assistance in arriving at a definite diagnosis and in estimating the effect of treatment on the course of certain diseases can be afforded by periodical and systematic examinations of the blood. Till quite recently, however, but little attention has been directed, especially in this country, to this line of investigation, and you have done, therefore, a good service to clinical medicine by calling attention to the trustworthiness or the reverse of the methods commonly employed for such purpose. The remarks as to the unsatisfactory nature of the results obtained in estimating the amount of hæmaglobin in a specimen of blood by means of the hæmaglobinometer I can fully endorse, as doubtless can all who have had much occasion to make use of this instrument or others of a somewhat similar nature. The main difficulties that one has to contend with are ably set out in your leading article, and it was with the hope of obviating some, at any rate, of the possible fallacies there referred to that I wished a few years ago to make trial in work on the blood of Lovibond's tintometer, an instrument then recently introduced for the estimation of colour in various trade processes. The apparatus was kindly placed at my disposal by the inventor, and in conjunction with him I carried out a large number of experiments on blood in health and disease, the results of which convinced me that we have in this instrument an exceedingly accurate means of estimating even minute variations in the hæmaglobin power of the blood. This is so even though the blood be more or less opaque, as is liable to be the case in leucocythæmia, for instance—a condition of things which would render estimations carried out with the hæmaglobinometer altogether valueless. I demonstrated the use of the tintometer for hæmoglobin estimation in the pathological section of the British Medical Association at the Birmingham meeting (in 1891, I believe) and have since then constantly used the instrument for this purpose, and have put on record certain of the results obtained with it. A week or two ago Dr. Oliver showed, at a meeting of the Physiological Society, a simplified form of the instrument which Mr. Lovibond and he had devised, and which will doubtless come into extensive use for clinical work as soon as its superiority over the hæmaglobinometer becomes more fully appreciated. For extremely accurate work, however, and especially if the blood be at all opaque, the original and more bulky instrument is essential, and should, I venture to think, find a place in every physiological laboratory.

I am, Sirs, yours truly,

S. MONCKTON COPEMAN.

Cromwell-crescent, S.W., March 31st, 1896.

PROTEST AGAINST THE INJUSTICE OF THE MEDICAL AUTHORITIES."

To the Editors of THE LANCET.

SIRS,—I shall not regret that you have published the notice-card of mine which was sent you if it serves to reopen a question which will not be allowed to drop again until it is settled once and for all. At the same time I may be permitted to express my surprise that in the comments you were good enough to make on the card in question you should not have felt it necessary to connect it with the general scheme and design of which it was the outcome—a scheme which was contained in a series of interviews on the "Degradation of the Medical Profession," published in the *Paddington Mercury*, and copies of which were duly sent you; for without such connexion and commentary the notice—divorced, as it were, from its context—is calculated to lay me open to misapprehension, while the tone of your comment to those who do not know the circumstances is calculated to do me serious injury. But as you are unwilling to allow me space for the discussion of the various points raised on the interviews I must ask you to allow me to make the necessary personal explanation. The card, as its wording implies, was at once a protest against the injustice of the medical authorities in permitting the touting from door to door of club agents for the benefit of particular medical men and a practical solution to a state of affairs which has become well-nigh intolerable, and arose out of a question of the editor as to whether some scale of fees could not be devised which would be at once within the means of working-class people and at the same time would give the medical man "a living wage." To this I replied that I believed such a tariff was possible, and expressed my willingness to adopt it if other medical men could be found to support me in it. Meanwhile the General Medical Council had refused even its "moral disapprobation" of the club system, and had even gone so far as to say that it existed, not for the protection of the profession against the public, but for the protection of the public against medical men. We were plainly told that we were not to expect any help from them in our battle with the clubs and were left to fight the matter out as best we may. The cards accordingly were issued after consultation with, and by the approval of, a number of other local practitioners not connected with the clubs, as an experiment to see how far the battle with the clubs could be successfully fought in this particular locality by a scale of fees such as I propose, I, as the oldest practitioner, undertaking to issue the cards in my own name and on my own responsibility. As regards my own *bona fides* in the matter, I may say that the cards were sent beforehand to the different medical journals, together with copies of the interviews in the *Paddington Mercury*, inviting comments on my scheme, and intimating that I would report progress as to the results of the experiment. That it was from no jealousy of the club medical men that I issued the cards is evident from this, that not only had I the first refusal of the leading clubs when they started here some years ago, but within the last few weeks I have had again the offer of one of the largest of them, and have again refused on the ground stated in the interviews, viz., that it is impossible to do justice either to oneself or the patient unless the club rate is *doubled*—that is to say, is made 2*d.* a week instead of 1*d.*, as at present. And, lastly, as I was by my new tariff to receive in future only one-half of what I had been receiving from all the old patients who fell within the wage limit laid down by me the experiment, as, indeed, it has so far proved, was a very doubtful one so far as any increase of my own income is concerned. It is too soon of course for a final judgment, but my own feeling from all I have learned is that the clubs are so deeply intrenched that nothing can prevail against them except a scale of fees on which it is quite impossible to live. I am, Sirs, yours faithfully,

JOHN BEATTIE CROZIER.

Elgin-avenue, W., March 24th, 1896.

"THE QUESTION OF MEDICAL DEFENCE."

To the Editors of THE LANCET.

SIRS,—In reply to Mr. Horsley's letter which appeared in THE LANCET of March 28th we beg leave to say that we have nothing to add to what we have already stated on this subject, and we must decline to be drawn into the discussion of any such irrelevant matters as the alleged interference of solicitors. This is, so far as we are concerned, our last remark on this subject. Thanking you for your courtesy,

We are, Sirs, yours faithfully,

G. A. HERON,
W. BRUCE CLARKE, } Delegates of the London and Counties Medical Protection Society.

March 31st, 1896.

To the Editors of THE LANCET.

SIRS,—Your article on the report of the Medical Defence Union, Limited, raises an important point—namely, the expediency of the absorption of the Union by the British Medical Association. This absorption appears to me to be desirable solely on the ground of economy. Multiplicity of organisations—if they are to serve any useful purpose at all—implies waste of money and waste of energy, and one powerful organisation will produce far better results than any number of smaller ones. Then another point arises: Is it not probable that, if there ever is established a powerful representative authority, the present inordinate number of individual cases with which defence associations are concerned will very materially lessen. The great evils which at present are with us owe their origin in a great measure to the want of representative institutions. The corporations aim at keeping the great mass of the profession in *statu pupillari* from the cradle to the grave: so far they have had their success. However much we look back with pleasure on our school and college life, very few of us would wish to have the schoolmaster or the college don in perpetual dominion over us. That condition is, however, to a very large extent that which obtains in our profession. Lecture-room methods are very well in their proper place, but when introduced into everyday life are not likely to promote general harmony. Unless

the majority of the members of the profession now combine to make the British Medical Association the great and powerful representative authority which it should be I see no chance of the profession exerting its full force either in the way of maintaining internal discipline or as a political factor.

The corporations have quite failed to recognise the fact that circumstances have changed and with a tenacity worthy of a better cause they cling to methods quite a century old. Under these circumstances the best policy before the profession will be found to be to say to the corporations, "by all means keep to your old world methods; we will make a corporation in which the meanest of its members will have a voice and an interest." Your article raises a second point, that of the position of a member of the General Medical Council with reference to his membership of such an association. Surely at the present time it has been shown pretty conclusively that corporation representatives sit on that Council, not to consider the interests of the profession as a whole, but the interests of the particular corporation which they represent. Why then should not members belonging to a representative body sit on such a Council? Your remarks on this head—if proof were needed at all—prove the necessity of the profession being considered as a whole and not as a mere collection of cliques, each one arrogating to itself superiority. If the corporations did not refuse corporate existence to the bulk of those who are connected with them the matter would be upon a different footing. As it is, absolutely unrepresentative of the profession as a whole or even a part, these bodies in every way promote disunion, which a united representative authority would discourage.

I am, Sirs, your obedient servant,

Hatfield, March 22nd, 1896. LOVELL DRAGE.

ACCIDENTAL RASHES IN TYPHOID FEVER.

To the Editors of THE LANCET.

SIRS,—The cases of accidental rashes occurring in typhoid fever simulating scarlet fever, published in THE LANCET of March 21st, are of considerable interest, especially, I take it, in connexion with the question of isolation. Scarlatiniform rashes during typhoid fever have come under my notice twice during two epidemics, but the following case of erythema scarlatiniform occurring during varicella appears to me unusual.

The case was that of a child aged three years who had been ailing six days; the patient had varicella eruption in various stages on the scalp, face, neck, chest, and abdomen; the symptoms were very slight. Two other children in the house were also suffering from it. On the seventh day a punctiform scarlet erythematous rash appeared over the whole of both upper and lower extremities, the temperature rose to 101° F., and the pulse to 140, the throat was normal and the tongue clean; there was conjunctivitis of the right eye. On the eighth day the rash was the same, the tongue was slightly coated with white fur, the temperature was 98·6°, the pulse 130, and the throat normal. On the ninth day the rash had quite faded, but fresh vesicles appeared on the abdomen. On the tenth day the tongue was quite clean, the conjunctivitis cleared up, and the patient was apparently well. At no time was there any albumin in the urine. No desquamation followed; the patient was under strict supervision for three weeks after. There was no scarlet fever in the neighbourhood at the time. Erythema in its many varieties is not uncommon in the district. No cause could be connected with the case with regard to medicine or diet. I have no doubt many practitioners have observed similar cases, and know how careful they had to be not to give a too hurried diagnosis.

I remain, Sirs, yours faithfully,

Newark-on-Trent, March 25th, 1896. ERNEST RINGROSE.

THE ADMINISTRATION OF PENTAL.

To the Editors of THE LANCET.

SIRS,—I trust that I may have misinterpreted Dr. Prince Stallard's paper and the subsequent discussion as reported in the syllabus of the proceedings of the Society of Anæsthetists in THE LANCET of March 14th. Dr. Stallard reported 150 cases of the administration of pental with one death; Dr. Dudley Buxton compared the reported cases of Gurlt (600, with three deaths) and Snow (238, with two deaths); in all, 988 cases with six deaths. Unless I have misread these figures we have the appalling mortality of one person out of every 164 to whom, in the practice of these anæsthetists, pental was administered to save a minute's pain. (The average duration of unconsciousness was in Dr. Stallard's cases seventy-six seconds.) The president is reported to have said that he was delighted to see members of the society pursuing their investigations into various drugs likely to become good anæsthetics. It is surely time that some old-fashioned practitioner like myself, who believes that the first object of a medical man is to preserve life, should protest against the use of so dangerous an anæsthetic, the advantages of which are stated to be: (1) that the patients recover quickly (if they recover at all); (2) no coughing, struggling, or dislike to the drug; (3) small amount required; (4) absence of after effects; (5) longer anæsthesia than nitrous oxide gas; and (6) simple apparatus. Besides five other stated disadvantages we have the fact that it is at least 100 times more fatal than other anæsthetics. I have practised surgery for more than thirty years and during that time have either myself administered or been responsible for the administration of anæsthetics in several thousand cases, and, happily, I have only seen one death (from chloroform in a prolonged abdominal operation). I cannot but compare my own experience and that of others in the use of the more ordinary anæsthetics with these reported cases of the results obtained from pental, and once more, although no specialist on the subject, protest emphatically against any further sacrifice of life from its use.

I am, Sirs, yours faithfully,

March 27th, 1896. THOMAS JAMES WALKER, M.D. Lond.

MIDWIVES' REGISTRATION BILL.

To the Editors of THE LANCET.

SIRS,—The second reading of the Midwives Bill is fixed for May 6th. In the meantime we wish to urge that the following action be taken immediately by each practitioner: 1. He should at once write to his Member of Parliament asking him to strongly oppose the second reading of the Bill, enclosing a copy of the "Reasons" against registration which may be obtained on application to the honorary secretary at the undermentioned address. 2. He should call at his earliest on the local political secretary of his Parliamentary division and ask him to communicate with his Member of Parliament his own feeling and that of local practitioners. 3. He should join at his earliest his local political association or club and ask its secretary and leading workers to write to his Member of Parliament, giving him copies of the "Reasons." 4. He should call a meeting of local practitioners, pass a resolution against the Bill, send a copy to their Members of Parliament, and ask them if they will receive a deputation of local practitioners. The same meeting should appoint a deputation and provide for the payment of travelling expenses. The local political secretary would arrange for it with their Members of Parliament.

We do not place much faith in the passing of mere abstract and academic resolutions or the signing of petitions. If the majority of practitioners in each Parliamentary division will write at once to their Members of Parliament asking them to oppose the Bill, sending them a copy of the "Reasons" signed by local practitioners, obtain the help of their local political secretary and of their local political and lay friends, these practical methods will give the best results. A list of Members of Parliament will be found in *Whitaker's Almanac*, pp. 135–145, and the address "House of Commons, London," will find them. As it is necessary that all opposition be organised in London, will practitioners please let the honorary secretary know the replies from their Members of Parliament? Funds are required to successfully oppose the Bill; we therefore propose that a "Midwives Bill Opposition Fund" be now formed. Copies of the "Reasons," pamphlets, and other information may be obtained from the honorary secretary.

We are, Sirs, yours faithfully,

C. CAMPBELL, W. W. HUGHES,
L. DRAGE, L. KIDD,
J. M. DOLAN, LAWSON TAIT,
G. C. SHUTTLEWORTH, R. R. RENTOUL (Hon. Sec.).

73, Hartington-road, Liverpool, March 28th, 1896.

"DEATH UNDER CHLOROFORM AT A DENTIST'S ROOMS."

To the Editors of THE LANCET.

SIRS,—Mr. Wardill's letter upon this subject in THE LANCET of March 21st raises many important questions, upon one or two of which I should like to be permitted to make a few remarks. I quite agree with those who think that nitrous oxide should be the main anæsthetising agent in all tooth-extraction work—nitrous oxide alone in the majority of instances and etherised nitrous oxide in cases of multiple extractions. The extent to which these agents will suffice for dental work is capable of numerical proof. For example, I have records in my own private note books for the past year of seventy-nine cases in which from four to six teeth were extracted, and of thirteen in which seven teeth and upwards were removed, including one case of fourteen extractions, one of thirteen, two of ten, and two of eleven. These figures refer, of course, to single sittings; no hospital cases are included in these records; and in all nitrous oxide was the main anæsthetising agent. With such figures as these before one it is difficult to say that chloroform should be preferred in any case. For surgical reasons I am always inclined myself to doubt whether it is judicious to advise the extraction of large numbers of teeth at a single sitting. But assuming that such a proceeding is absolutely imperative in some circumstances I would urge that these cases should be treated, not so much as tooth extractions pure and simple, but rather as operations about the mouth, and I would submit that for operations about the mouth the "dentist's rooms" are certainly not the proper place. Such operations should be performed either at the patient's home or in some institution where proper nursing is available, and, in fact, the ordinary operative routine, as distinguished from the routine of simple tooth extraction, should be adopted in every instance. Until this plan is adopted I fear that we shall continue to hear of accidents such as have been recently reported. I believe that I am right in saying that those who are responsible for the teaching of anæsthetics in our medical schools are absolutely unanimous in condemning the administration of chloroform in the dental chair; in fact, some go so far as to teach that the proceeding is not justifiable under any circumstances. If the matter were put to the patient in this way it would be seldom, I think, that he would hesitate to adopt the more cautious plan of two or three sittings, or that he would grudge the slight extra expense which might be involved.—I am, Sirs, yours faithfully,

J. F. W. SILK,
Anæsthetist and Instructor in Anæsthetics at King's College Hospital; Anæsthetist to Guy's Hospital Dental School.
Weymouth-street, W.

"THE DUTIES OF DIVISIONAL SURGEONS IN CASES OF INFECTIOUS DISEASES."

To the Editors of THE LANCET.

SIRS,—In reply to the letter published in THE LANCET of March 21st by Dr. Thyne, as I am the divisional surgeon referred to in that letter I consider it only right to give you my explanation. The charges made I admit are quite correct as stated in his letter, but that gentleman omits to tell you that he has frequently within the last year done exactly the same to patients of mine; and that he takes every opportunity he gets to make the duties of divisional surgeon as disagreeable as he can. I have been in practice in Barnet twenty years; during the whole of that time the families of the police were attended privately by me and the other medical men resident in the town until within the last three years, when Dr. Thyne offered his services at the following rates: woman and child, 1½*d.* per week; a whole family, no matter how many children, 2¼*d.* per week. For this sum he contracted to attend all illnesses, including fractures, dislocations, operations, and infectious diseases, and for this splendid remuneration were included the families of divisional inspectors, inspectors, station sergeants, sergeants, and constables, whose weekly wages are £4, £3, £2 15*s.*, £2 8*s.*, £1 14*s.*, £1 12*s.*, £1 10*s.*, and £1 7*s.* In this town there is only one other society, the Mutual Aid Society, who provide medical attendance for the families of the working class. They pay their medical officer, Dr. Mercer, 6*d.* per week for a whole family, or 2*s.* per month, against Dr. Thyne's 9*d.* per month. I ask you, Sirs, is he acting fairly towards his brother practitioners? Is it not degrading to the profession of medicine? Perhaps your Commissioner will include this case in his essays on the "Battle of the Clubs."

I am, Sirs, yours faithfully,
W. J. HARNETT, F.R.C.P. Edin.,
Divisional Surgeon, Barnet.
Belvedere House, Barnet, March 24th, 1896.

"THE SCHOTT TREATMENT OF HEART DISEASE."

To the Editors of THE LANCET.

SIRS,—Dr. Leith's paper, published in THE LANCET of March 21st and 28th, is one of the few serious attempts to place Schott's system on a scientific basis, and as such deserves critical study. With most of Dr. Leith's conclusions I entirely agree, but there are some important points which he appears to me to miss, and a few of these I propose to briefly touch upon. 1. Dr. Leith admits that the respiratory movements are amplified by both the baths and exercises; but he does not think that this amplification governs the circulation, arguing that the accelerating influence of the deep inspirations is counterbalanced by the retarding effect of the expirations. It must, however, be remembered that it is only when expiration is forcible, or when it proceeds beyond the ordinary limit, when, in fact, it is "extraordinary," that it appreciably retards the circulation; and in the case before us it is doubtful whether it is either forcible or extraordinary, it being essentially a passive recoil from a state of amplified inspiration. 2. I would suggest that the retraction of the abdomen and ascent of the diaphragm which take place in the bath are only in part, if they are at all, due to the pressure of the super-incumbent water. The effect of cold when applied to the body is to cause expansion of the bony thorax and to excite costal respirations. Witness the effect of dashing cold water on the back—a deep sigh results, and a sigh is essentially effected by means of a costal respiration. This costal expansion, together with the contraction of the abdominal muscles which results from the cold, causes the flattening of the abdomen observed in the bath. 3. The effect of this latter is to increase the intra-abdominal tension, and the inferior cava and splanchnic veins being thus compressed the return of blood to the right heart is impeded, so that this chamber has an opportunity of disgorging itself of any excess of blood it may contain, a process that is favoured by the deepened inspirations. 4. I have said that cold tends to increase the tonic contraction of the muscles. One is conscious of a widespread semi-voluntary contraction of the muscles when cold is applied to the body, the individual bracing himself up, as it were, to resist the cold. Now the effect of this increased muscular tone is to attract blood to the muscular system and to hinder the venous outflow from it; and this further tends to diminish the input of the right heart. 5. Resisted movements have a similar effect. Dr. Leith quotes an opinion of Dr. J. F. H. Broadbent—one he himself is inclined to share—to the effect that the resisted movements "press upon the veins and favour the return of the venous blood to the heart." This is the very thing I believe they do not do. Writers on the Schott treatment have entirely lost sight of the important fact that a resisted movement implies a widespread tonic contraction of the muscles. When such a movement is made, not only are the muscles especially engaged in it tonically contracted, but there is an increased tonic contraction of numerous others in order to preserve the equilibrium (for be it observed these movements are nearly always performed while the patient is standing). In short, almost the whole muscular system is thrown into a state of tonic contraction. The effect of this, like that of cold, is to attract blood to the muscles and at the same time to diminish the venous outflow from them, the flaccid veins being *continually* compressed; intra-abdominal tension is, moreover, raised by the tonic contraction of the abdominal muscles, and the flow in the splanchnic veins and inferior cava thus impeded. 6. The baths increase the mean arterial resistance and thus tend to limit the arterial output, and I am not sure that widespread tonic contractions have not the same effect. Be this as it may, I am convinced that the Schott system does not benefit, as many suppose, by diminishing peripheral resistance, but rather by increasing it. There can be no doubt, as Sir William Broadbent has so ably

insisted, that a great deal of heart disease is causally associated with prolonged high tension, and that a high peripheral resistance is an essential factor in initiating dilatation of the left ventricle. Nevertheless, it is only in a limited number of cases of heart failure that we are called upon to reduce peripheral resistance, and then only as a temporary measure. In the worst cases radial tension is generally low, and the meagre stream of blood escapes all too readily into the already overgorged veins. In such cases we seek to increase rather than to diminish resistance, and the good effects of digitalis are in no small measure referable to its constricting influence on the arterioles. Sometimes, indeed, vaso-motor constriction occurs as part of the general scheme of compensation, as happens more particularly in mitral obstruction and in obstruction originating in the pulmonary circuit. 7. I have argued that the baths and resisted movements tend to limit the flow into the right heart; but how, it may be asked, can this conclusion be reconciled with the undoubted fact that the entire circulation is accelerated by their means? The answer is that the flow into the right heart is only relatively diminished — i.e., when considered in relation to the increased cardiac activity. There is no doubt that both the baths and movements stimulate the right heart (how we need not stop to consider), so that, while on the one hand blood is prevented from flowing too readily out of the arterial system, the supply to the veins being thereby limited, and while on the other hand the flow from the veins into the right side of the heart is impeded, this organ is incited to aspirate and urge on the blood with increased force, while at the same time the deepened inspirations favour the pulmonary flow. And here, Sirs, I must end, though I have only been able to touch upon the fringe of this important subject. In conclusion I beg to express my deep obligation to Dr. Leith for his valuable paper. I am, Sirs, faithfully yours,

Devonshire-street, W., March 28th, 1896. HARRY CAMPBELL.

"AN INQUIRY INTO THE PHYSIOLOGY OF THE ACTION OF THERMAL SALINE BATHS AND RESISTANCE EXERCISES IN THE TREATMENT OF CHRONIC HEART DISEASE."

To the Editors of THE LANCET.

SIRS,—The following references have appeared since the date of delivery of this paper and while it was in the hands of your printers:—

53. Herschell: Critical Remarks upon the Nauheim Treatment of Heart Disease, THE LANCET, Feb. 15th, 1896, p. 413. He failed to get any favourable results in his cases and entirely condemns the system. 54. Brown (Ralph): The Nauheim Treatment of Heart Disease (a letter), THE LANCET, Feb. 29th, 1896, p. 585. He emphasises the influence of CO_2 and its absorption by the lungs. 55. Bezly Thorne: Notes on Certain Changes in the Cardio-vascular System which are Induced by Treatment according to the Schott Methods, Brit. Med. Jour., March 14th, 1896, p. 653. He distinguishes an oval, bipartite, and conoid form of dilated heart as made out by auscultatory percussion, a method which is, in my opinion, quite untrustworthy, and has given him illusory results. 56. Kingscote: Fifteen Months' Practice of the Schott Methods for the Treatment of Chronic Affections of the Heart, THE LANCET, March 21st, 1896, p. 761. He gives seven cases, but we fail to follow him in his *rationale*. 57. Bezly Thorne: Self-poisoning in Heart Disease and its Relation to the Schott Method of Treatment, THE LANCET, March 21st, 1896, p. 755. 58. Bowles: The Nauheim and Schott Treatment of Diseases of the Heart, a paper read before the Harveian Society of London, March 19th, 1896. He supported the methods *in toto* and gave four corroborative cases.

I am, Sirs, yours faithfully,

Edinburgh, March 24th, 1896. R. F. C. LEITH.

"RUPTURE OF THE TERMINAL EXPANSION OF THE EXTENSOR COMMUNIS DIGITORUM."

To the Editors of the THE LANCET.

SIRS,—Dr. F. G. Wallace's case of rupture of the terminal expansion of the extensor communis digitorum[1] reminded me of a similar case which came under my care on July 16th, 1895. The patient, a man aged fifty-five years, of a delicate constitution, while trying to lift a pillow weighing about 500 drachms, felt something give way with a snap in his left ring finger, but felt no pain. On looking at it he was startled to see the third phalanx flexed almost at right angles to the second. I saw him immediately after. The phalanx could be easily pushed straight, but would soon drop to its former position if left alone. On the lower third of the dorsum of the second phalanx a small, tender swelling could be seen, which was undoubtedly the point where the ruptured end of the tendon had been drawn. The groove corresponding to the second phalangeal joint could be felt more distinctly in this finger than in the others, especially when the third phalanx was held in a position of semi-flexion, owing to the rupture of the expansion of the tendon which forms the posterior ligament of the joint. I soon put the whole finger, completely distended, in plaster of Paris, in order to put the joint in a sure state of complete rest. In two weeks the plaster was removed and the joint was found to be better; some movement could be seen in it. I put it again in plaster for fifteen days more, at the end of which I found the joint quite movable, but not easily and freely, the swelling at the dorsum of the second phalanx was smaller and the tenderness had by this time disappeared. For fear of having the tendon ruptured again I put it for fifteen days more in plaster, and when this was removed the joint was seen to be strongly and freely movable, the swelling almost gone, and the man is now as well as ever.

I am, Sirs, yours truly,

Alexandria, March 10th, 1896. S. F. SHAMOUN, M.D.

[1] THE LANCET, Feb. 29th, 1896.

CONFIDANT OR INFORMER?

To the Editors of THE LANCET.

SIRS,—In a recent libel case Sir John Williams is reported to have said that "a medical man is obliged to inform the Public Prosecutor of any crime which has been committed or is intended to be committed." I do not know what significance Sir John Williams attaches to the term crime, but I take it that he uses it not in the literal sense of a matter for inquiry, but in the conventional sense of a violation of the law. Attempted suicide is "a crime under the law," to employ an expression used by Mr. Justice Hawkins, and I should like to ask if it is held that a medical man who is called on to attend a patient who has taken poison admittedly for suicidal purposes and who recovers is bound to communicate with the police. Speaking from personal experience, I may say that I have attended many patients under these circumstances and that I have never given information. If the patient dies there is an inquest and the matter settles itself, but to go away from the patient's bedside after saving his life and denounce him to the police seems to me to be a hateful taste and to be contrary to all principles of morality. Rather than do so I would take my chance of being charged as accessory after the fact, for I am sure no jury would convict under the circumstances. In spite of the respect which, as an old pupil, I naturally entertain for the high position of Sir John Williams, I am bound to say that I do not appreciate this new code of ethics, and I am sure that it will be a bad day for the profession when the public cease to believe that their secrets are held inviolate by their medical advisers.

I am, Sirs, yours faithfully,

WILLIAM MURRELL.

Welbeck-street, Cavendish-square, W., March 27th, 1896.

THE TWELFTH INTERNATIONAL MEDICAL CONGRESS AT MOSCOW.

To the Editors of THE LANCET.

SIRS,—I have received a further letter from Professor Crisman, the general secretary of the next International Congress, in which he tells me that the question of languages is to be reconsidered by the executive committee, and that in all probability the English language will be admitted to equal rights with German, Russian and French. The letter continues: "This will be done because it has become clear that the exclusion of the English language would not be well received by our English colleagues, and the committee do not consider themselves justified in insisting on their first decision if the general opinion of our English colleagues is clearly against it. You may rest assured that the committee, in discussing this question and coming to their first decision, were guided solely by considerations of what would be of

advantage to the Congress, and were far from having in view the national aspect of the matter."

I am, Sirs, yours faithfully,
YOUR ST. PETERSBURG CORRESPONDENT.

"ASSISTANTS."

To the Editors of THE LANCET.

SIRS,—I have read the letter in THE LANCET of March 21st signed a "Sorely-tried Principal," and with your permission I will state my opinion of principals in general, backed by an experience extending over three years as assistant in various practices. The average general practitioner holding club appointments, and, therefore, requiring a qualified assistant, is lamentably ignorant, not only in the use of drugs, but in all recent hospital work, and as a rule treats his assistant little better than a horse, endeavouring to get as much work out of him as possible and at the same time paying him a small salary which many shop-boys would despise. We assistants as a class are in a disgraceful position, being merely paid servants of our employers, and it is quite time that we should endeavour to combine and better our status. Whenever I read in the "Battle of the Clubs" medical aid societies sweating their medical officer it occurs to me that the principal sweats his assistant ten times worse. The public in general are disposed to blame an assistant if he leaves his principal, but in my experience life frequently with the latter is little short of a mild hell, and that is saying a good deal. I am sorry to say that assistants are a necessary evil as long as club practice exists. We have the remedy in our own hands—that is, proper combination for our own mutual interests. Apologising for trespassing on your valuable space,

I am, Sirs, yours truly,
March 24th, 1896. A SORELY-TRIED ASSISTANT.

THE BATTLE OF THE CLUBS.—XXVI.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 805.)

NOTTINGHAM: THE LONDON AND MANCHESTER INDUSTRIAL ASSURANCE COMPANY, LIMITED.—THE PUBLIC-HOUSE MEDICAL AID CLUBS.

ALTHOUGH there are a great many organisations for providing medical aid in Nottingham it is principally against the London and Manchester Industrial Assurance Company, Limited, that the members of the profession in this town have taken up arms. Judging from the experience acquired in other towns this special feature of the struggle at Nottingham seems to me somewhat surprising. I am anxious not to dogmatise; I do not pretend to know more than what has come under my personal observation; I simply record facts as they happen to present themselves to me. Now it may be a mere coincidence—perhaps in other towns I may collect evidence of an opposite character—but I feel bound to record as a matter of fact that till the day I reached Nottingham I never came across any practitioner who complained of the action of what is familiarly called the "London and Manchester." On the contrary, many a practitioner has, while complaining bitterly of different medical aid associations, ended by saying that the London and Manchester Company was "all right." The system, doubtless, was "all wrong," but in actual practice there was nothing particular to complain about so far as the London and Manchester Company was concerned. Perhaps in Nottingham the agents of this company have not displayed their usual tact. The trouble, I am told, began in the following manner. A well-known practitioner was attending a patient whose annual bill amounted to a sum of £10. The patient, however, joined the London and Manchester, and then the practitioner discovered that henceforth he could only hope to receive 4*s.* where he had formerly been paid £10. Seeing that the patient was a man of means, it was very natural that his medical attendant should feel somewhat wrathful and he communicated his resentment to the Nottingham Medico-Chirurgical Society. The matter was taken up and this was the commencement of the discussions that have led to the formation of a medical union, as already fully described. It was now found that the agents of the London and Manchester Industrial Assurance Company, Limited, were distributing all over the town a circular bearing the name and address of twenty Nottingham practitioners, several of whom are men who hold the highest position in the town. On one side of this handbill or circular it is stated that the company was established in 1869, is incorporated under Act of Parliament, with authorised capital of £100,000. Then there are tables divided into seven columns, each column relating to seven different rates of payment, which vary from 2½*d.* to 7½*d.* per week. Thus, in the first column, one reads that a person who will be eleven years old on his next birth-day can insure his life for the amount of £10, and also receive medical attendance and medicine during illness, for the payment of 2½*d.* weekly. Each year the sum insured is smaller. At twenty years of age it is £8 5*s.*; at thirty years, £6; at from sixty-five to seventy years only £1. As the danger of death increases the amount insured is decreased: no difference, however, is made as the danger of illness increases. At most the medical officer receives a penny a week, whether the subscriber be young or old, healthy or feeble. It is even expressly stated on the circular that no medical examination is required if the sum insured is under £20, unless the subscriber is more than fifty years old. Then there is a second table dealing with the infantile department. Here are set forth the sums payable at death in exchange for a subscription of 2½*d.* per week, which includes medical attendance and medicine during illness. Thus if a child under one year old is insured and dies after three calendar months, £1 10*s.* is paid; if after one year, £2 15*s.*; and after ten years, £10. On the other side of the circular is the following announcement:—

"The distinguishing feature of this company is, that it not only enables persons to assure for a sum payable at death, but also to secure in case of illness the best medical attendance (at their own homes whenever necessary), medicine, and advice, the two benefits being combined for the small sum of 2½*d.* per week. Over 1000 duly qualified medical gentlemen are attached to the company throughout the country, and members are transferred from one district to another free of charge. Members are allowed to choose any doctor on the company's staff, no pressure being put upon them to have any particular one. There are no entrance fees, fines, or levies of any description."

Then examples are given of the working of the insurance, and in each case stress is laid on the advantage of the medical aid. Thus in the margin of the circular is printed:—

"Example.—A person forty years of age next birthday at time of entry can secure the best medical attendance and medicine in illness and £4 payable at death for a premium of 2½*d.* weekly. If a premium of 3½*d.* weekly be paid the sum payable at death is £9."

Then we are informed that no better proof of the success of the company can be given than the fact that 141,135 new policies were issued during the past financial year. Following on the purely business statements that are printed on this little circular or handbill—which can be distributed anywhere, slipped under doors, or dropped into letter-boxes—are the names, addresses, and qualifications of twenty Nottingham practitioners. The same circular is used in other towns, the names and addresses of the medical officers alone being altered. It is this advertising of medical men that has especially vexed the profession at Nottingham, and several of the medical officers in the service of this company are most anxious to have their names erased from this circular, but rightly conceive

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, 1896, Club Practices in Rural and Mining Districts; (19) Feb. 1st, 1896, The Formation of a Provident Medical Association at Folkestone; (20) Feb. 8th, 1896, The Manchester Medical Guild and Medical Aid Associations; (21) Feb. 15th, 1896, The Leicester and Leicestershire Provident Dispensary; (22) Feb. 22nd, 1896, The Organisation of the Profession at Leicester; (23) March 7th, 1896, Loughborough: Local Efforts Defeated by Consultants from Neighbouring Towns; (24) March 14th, 1896, Medical Aid Societies in Small Heath; Medical Clubs at Stockport; (25) March 21st, 1896, General Meeting of the Profession and the Formation of a Union at Nottingham.

that more good will be done by organising first and then resigning collectively.

Apart from this question of advertising medical men, which is not peculiar to the London and Manchester Company but is practised by all insurance companies, I was anxious to ascertain what were the special complaints against this particular company. After some search I discovered a practitioner who very kindly gave me a full account of his experiences. Several years ago he established himself in a growing district on the outskirts of Nottingham. Houses were then in the course of construction, many streets being barely laid out and as yet possessing no houses. When he had been here a little more than a year and had already acquired some popularity among the neighbours he was approached by an agent of the London and Manchester Company, who wanted to engage his services as one of the medical officers of the company. Having acquired some experience of this sort of work in another town the medical man in question at first refused this offer. The agent of the company urged that it would make him known, but my informant shrewdly suspected that the boot was on the other foot; that he was known and the company was not known, and that the insurance agent was anxious to avail himself of the popularity which the practitioner had acquired. However, the agent went on to explain that the insurance company did business with very poor working people and persons who had large families. When ill these people would certainly send for my informant; he would have to attend to them, but he would not be paid for his services. He might send in his bill, but this class of patients were too poor to pay. On the other hand they might be persuaded to pay a small insurance premium, and that would be better than nothing. This, in any case, was a well-founded argument, for with a certain class of persons the only prospect of payment is by weekly instalments. Thereupon the medical practitioner in question consented to become one of the medical officers of the London and Manchester Company, it being understood that the agent would only enrol a small number of subscribers and these were to be recruited from among the class of very poor people who could not be expected to pay in any other way. To my informant's surprise he soon found that the number of patients went up by leaps and bounds. The agent was most active. He even persuaded out-patients of the hospitals to join. This naturally increased the proportion of patients who were subscribers and unduly augmented the practitioner's work, for, as stated above, there is no medical examination for persons who insure for less than £20.

In a little while it became apparent that where there was a family of several children it was always the unhealthy child whose life was insured, while the healthy children were not insured, thus entailing on the medical officer the maximum amount of work for the minimum amount of pay. On one occasion a woman who was in a dying condition was allowed to insure. The medical officer protested, but the agent answered that it did not matter as the woman would surely die before she had paid enough to be in full benefit. The medical officer thereupon retorted he would send in his bill for full medical fees to the company as they had called him in. If they intended to shirk their responsibilities he would do so also. The result was that the company on the death of the patient paid a much larger sum than they would otherwise have done. It will be seen that no thought is given as to the medical officer's interests. It does not matter how much work he has to do or money to spend in the providing of drugs. Soon it became evident that the agent was not working exclusively among the poor who could not be expected to pay medical fees. On the contrary, he had enrolled well-to-do tradesmen and solicitors' clerks, and was beginning to neglect the streets where the poor people lived. When the medical officer complained the agent replied, "Oh, we can get better people in than that." Looking at the matter from the money-making insurance point of view, the agent failed to realise that he had by that one sentence aptly described the irreconcilable character of the interests of his company and those of the medical profession. The agent was proud of the fact that he could afford to neglect the poorer people, forgetting that the medical officer had consented to serve on the condition that he should be called upon to attend only the poor, and that it was essential the "better people" should not be insured against sickness at rates only applicable to the very poor. Finally my informant found that the agent followed him about and noted the address of his private patients, called upon them, and persuaded them to insure their lives. They would then be attended by their own medical man just as formerly, but would only have to pay a penny per week instead of 2*s.* 6*d.* or more per visit. Many persons were thus persuaded to join the insurance company, and the medical officer lost several of his paying patients. This brought matters to a climax and my informant wanted to resign, but the other medical practitioners of the neighbourhood persuaded him not to do so, on the ground that the company would surely bring down a new practitioner and that there were already medical men enough in the town. He then said that instead of having 600 to 700 subscribers to the London and Manchester Company on his books he would only take 200, so as to have only the poor. But this did not work well and my informant finally resigned. Thereupon the superintendent of the company came down to see if he could not arrange matters. He confessed that the company would lose a good deal if the medical officer persisted in resigning, and at a recent meeting the directors of the company had stated that, thanks to the work done by the medical men, they were able to declare a good dividend. This very clearly shows that medical men are utilised by financial companies for speculative purposes and that it is all a matter of business and not a question of philanthropy.

My informant, in spite of all the persuasion brought to bear, persisted in resigning, and the company consequently wrote him a letter to the effect that they must make arrangements "to take over the practice." This sentence will be duly appreciated. After successfully pursuing an expensive course of studies a medical man establishes himself in a district, he not only creates for himself a good practice, but he enables an insurance company to effect a great many insurances; and then, when he no longer cares to work for this company, they coolly write and inform him that they must make arrangements to take over his practice. Nor is this an empty threat; it is too often very effectively carried out. In the present instance the company, it is true, were not very successful. They brought a medical man down, and it was thought that he would settle in the district, but it did not seem to suit him and he has gone away. Then they persuaded two young medical men who live in Nottingham and at some distance to open small surgeries in the district in question, where they attend now and then. But this is not very successful, and my informant is now getting back many of the patients he had lost.

There are a number of other insurance companies in Nottingham and many clubs and friendly societies. The usual complaints are made about these institutions. They enrol many comparatively wealthy people, and one of the mayors of Nottingham was a member of a friendly society and did not scruple to claim medical aid at club rates, notwithstanding the high position he occupied. But the worst feature is the existence at Nottingham, as at Grimsby, of public-house slate clubs. The only difference is that they have adopted a better title. The call themselves "sick and annual clubs." This certainly sounds a little better, but it is not flattering to see hung up over a public-house bar an announcement that "A Sick and Annual is held here," followed by the name and address of the medical man whose services have been secured. Some publichouses go to the extent of having the announcement engraved on a brass plate; perhaps this is thought more professional. The system is the same, the subscription usually being 6*d.* per week. A sick allowance of 5*s.* for six weeks is often made, and in all cases medical attendance and medicines are provided. Whatever money remains in hand at Christmas is evenly divided among the subscribers by the publican. The payment made by the publican to the medical man seems, however, somewhat higher than at Grimsby. Not long ago a publican asked a Nottingham practitioner how much he would take to attend the club which the publican was about to establish. The price mentioned was 4*s.* The publican subsequently called on another practitioner, who, hearing that 4*s.* had been demanded, offered to take the club for 3*s.* 6*d.* The publican then called on a third medical man, with whom he closed the bargain for 3*s.* 4½*d.* While medical men thus undersell each other for the honour of being medical officers to a public-house club, it is rather difficult to uphold the honour and dignity of the profession. A well-known Nottingham practitioner related to me that he had very recently been asked to become medical officer of one of these public-house clubs. The publican explained that he had enrolled 60 members and wanted them to be admitted without medical examination. This might be considered as

a sort of privilege given to the founders of the association, but he had 120 more persons who would in all probability join, and these might be medically examined before admission. The publican urged that it would be a very good club, that all the neighbouring shopkeepers had joined, and that if the medical man did not accept the position he would lose many of his patients. Indeed, as these public-house clubs are more expensive—at least 6*d*. a week—they recruit a number of small tradesmen and better-paid artisans, a class of men who to a very great extent can afford to pay medical fees and should not belong to medical aid associations. It is sincerely to be hoped that now a medical union has been formed at Nottingham a determined effort will be made to put an end to this degrading exploitation of medical men by publicans.

UNITED ACTION AT LINCOLN.

AT a meeting of the medical practitioners in Lincoln, held at the Lincoln General Dispensary on March 30th, the following resolutions were unanimously adopted and signed by *all* the medical men practising in Lincoln. The signatures include those of the four medical officers to the two medical institutes in Lincoln. A guarantee fund has been started, and considerably over £100 is already promised.

Resolution.—We, the undersigned medical practitioners in the city of Lincoln, have agreed that the following rules and scale of fees ought to be adopted in all medical clubs under the Friendly Societies Acts and in all medical aid associations:—

1. That no one shall be entitled to medical attendance whose income from all sources shall exceed £2 per week, nor shall anyone be so entitled whose rental shall exceed £20 per annum.

2. Members whose income exceeds £1 per week shall pay for medical attendance on themselves at the rate of 4*s*. 4*d*. per annum, for attendance on their wives 5*s*. per annum, and for attendance on each child 4*s*. 4*d*. per annum, but only four children shall be charged for in any one family.

3. Members whose income does not exceed £1 per week shall pay for medical attendance on themselves at the rate of 4*s*. 4*d*. per annum, for attendance on their wives 4*s*. per annum, and for attendance on their children 4*s*. per annum.

4. Members of juvenile clubs shall pay for medical attendance on themselves at the rate of 4*s*. 4*d*. per annum.

5. That extra fees shall be charged as follows: Dislocations, fractures, and major operations as allowed for by the Local Government Board. Minor operations, 5*s*. Extraction of teeth, 1*s*. Confinements, 10*s*. 6*d*.; operative midwifery, 15*s*. Vaccination, 1*s*. 6*d*.; with calf lymph, 2*s*. 6*d*. Consultations with another practitioner, 5*s*. Examination previous to admission: adults, 2*s*. 6*d*; juveniles, 1*s*. Certificate required by members for other clubs, 1*s*. each certificate.

6. That the medical officers shall receive the whole of the above fees after the deduction of the legitimate expenses.

7. That three months' notice on either side shall be required to terminate the engagement of any medical officer.

8. It is strongly recommended that the medical officers of these societies should be *ex-officio* members of the committee of management.

We further agree and declare that we will not accept office or continue in office as medical officer to any friendly society or medical aid association which does not adopt these principles. We also agree and declare that we will not meet in consultation or otherwise any medical practitioner who accepts office to any of these institutions which have not adopted these principles. In the event of the dismissal of any medical officer on account of his acting in agreement with these decisions we undertake to use our best endeavours to get such officer reinstated, or failing that to do all in our power to secure for him another appointment.

Signed—

E. MANSEL SYMPSON.
GODFREY LOWE.
EDWIN C. PALMER.
C. H. HOSKYNS ABRAHALL.
F. BASTOW COOPER.
FRED. S. GENNEY.
L. BEW TODD.
D. J. G. WATKINS.
C. M. DAVIDSON.
A. P. RUSSELL.
C. HARRISON.
JOHN T. COLLIER.
B. MCFARLAND.
G. H. MOUNSEY.
F. J. MASON.
F. C. P. HOWES.
W. H. B. BROOK.
DAVID JOHNSTON.
FRED S. LAMBERT.
G. M. LOWE.
P. W. YOUNG.
H. EAST.
A. DEAN ROBERTS.
E. WHITWELL.
WM. JNO. MCDADE.
W. J. CANT.
GEO. HUTCHINSON.
J. STILL THOMSON.
T. H. WHITE.
WM. O'NEILL.
C. BROOK.
ALBERT LOUIS PEACOCK.
F. H. ATKINSON.
W. A. CARLINE.

THE ASHANTI EXPEDITION.

(FROM OUR SPECIAL WAR CORRESPONDENT.)

I.

Home Preparations for the Expedition with an account of the Hospital Ship "Coromandel."

WE now commence the six articles dealing exhaustively with the late Ashanti Expedition, which we promised to place before our readers at an early date. In connexion with the description of the *Coromandel* we refer our readers to a paper by Dr. Murray Braidwood, which appears on p. 914.

With the occupation of Kumasi, the arrest of King Prempeh and his entire suite, the surrender of Ashantiland, and the return to England of our forces, another British military undertaking has, without bloodshed happily, been brought to a most successful termination. It perhaps will be as well if a retrospect of the past be taken in order to ascertain how important a factor our English military medical service and its organisation have proved in securing their own measures of success during this short but brilliantly conducted West African campaign. Be it remembered it was surmised from the first that this undertaking would turn out to be a "Doctors' War." Undoubtedly, it has throughout proved to be so. With only two or three exceptions the physician's rather than the surgeon's skill has been largely requisitioned to combat the disastrous effects of this West African malaria, a terrible kind of remittent fever which has not only cost the nation the lives of some distinguished, well-beloved, commissioned officers, and of some 12 non-commissioned officers and men, but has in addition prostrated in sickness a large number of those who, in the pride of life and best of health, went out from England only some three months back to take part in this campaign. In the columns of THE LANCET[1] published a few days before the bulk of the expedition was fairly *en route* certain facts were noticed regarding the peculiar features of the climate likely to be experienced by our countrymen when they reached West Africa, and a few suggestions were at the same time put forward by way of precaution, by the adoption of which it was hoped that some of the climatic evils certain to be encountered might be lessened in their effects if it were not possible to escape them altogether. First of all it was pointed out that malarial remittent fever of a serious type, dysentery, and heat apoplexy were the diseases most likely to be met with by our European troops to be employed on this service. Secondly, it was remarked that the heat, although somewhat great at times during the middle of the day, was not nearly so much to be dreaded as a rapid fall in the temperature at night time, as well as the presence of fogs in these malarious districts which, coming on just after sunset and remaining till perhaps ten or eleven o'clock the following day, would envelop everything in a dense, white, damp mantle. Thirdly, it was urged that the greatest care would have to be exercised in the selection of water intended for drinking or culinary purposes, all reports having proved that water in Africa should be considered and treated as suspicious, polluted as it is, more or less, with animal and vegetable matter, rendering it a potent source of disease, especially as one of the principal causes in producing dysentery, a complaint occupying a premier position amongst the many dangerous ailments in that unhealthy climate. Not only previously to starting but also during the passage out to Cape Coast Castle the medical staff were busily engaged in putting their practical precautions into shape, and by incorporating them in the general list of orders issued to all officers in charge of bodies of troops they left no stone unturned in the way of early warning. The medical orders were as succinct as they were unmistakable, hence no error in their interpretation or meaning could be made by those commanding nor could any excuse have been allowed for disaster arising out of wilful negligence by the careless non-observance of them.

With regard to the general orders, it may first be noted that the men were to have a cup of tea or coffee immediately on rising. Breakfast was to be partaken of in the middle of a march, or about two hours after rising. Secondly, helmets

[1] THE LANCET, Nov. 23rd, 1895.

were to be worn from sunrise to sunset. If any coats were taken off during the march they were to be put on again during the halts. Chills were very likely to occur and ought to be guarded against; also wet, perspiration-soaked shirts were to be taken off at midday and hung up to dry, the body at the same time being rubbed with a coarse towel. Cholera belts were also to be worn. Thirdly, men were to restrict themselves to the food as supplied per ration scale, no individual purchases being permitted. They were, moreover, warned against drinking locally-made aerated waters. Fourthly, quinine was issued daily to each man on parade, just after their early cup of coffee. Fifthly, fever and dysentery being the principal diseases to be feared great care was to be used in the selecting, boiling, and filtering of water prior to use. Sixthly, under the heading of Sanitation great stress was laid on camp cleanliness, and any water-supply was to be carefully guarded against pollution by natives bathing or washing therein. Seventhly, bathing was also recommended under certain restrictions.

With reference to the preparations at home it was felt by all who knew the West Coast of Africa well and were concerned in the organisation of the expedition that it would be a risky affair as far as health was concerned even under the most favourable conditions of atmosphere and weather, as well as imprudent and useless, to send out too young or tropically unseasoned men on this expedition. Hence, although offers from individual volunteers for this service were numerous enough—far more, in fact, than the executive could entertain—the authorities wisely contented themselves with selecting only those officers and men whose physique and stamina after careful medical inspection could be relied on. The Composite Service Battalion, a body of picked men from various regiments, was the result of careful choice and wise determination. If any one thing more than another could have demonstrated the wisdom of this new departure in military formation by the Commander-in-Chief it certainly would be found in the way in which the well-chosen units of this composite formation have marched, worked, and borne the climate of Western Africa, for not only have they established a reputation for physical endurance, but they have, in addition, by comparison fairly beaten the coloured West African troops out of the field. Following closely on the heels of the Composite Service Battalion, as far as European troops are concerned, come the West Yorkshire men. They, too, have done very well, but their residence abroad appears in no way to have helped them to withstand the ravages of this climate; on the contrary, it seems to have rendered them more susceptible to its poisonous influence. But be they "Composites," West Yorkshire, West Indian, or Haussas, they one and all have worked manfully and brought to a successful issue a dangerous and very risky campaign the results of which, when compared with those of other nations' attempts in similarly dangerous climates, we ought to be very proud.

Prior to their embarkation the men's kits evidently seem to have been carefully supervised and extremely well attended to. Amongst the various articles introduced flannels and woollen underclothing were much in evidence, and greatly needed they were, too, in such a damp atmosphere as was afterwards experienced. A certain amount of indecision, however, seems to have existed in the minds of the head-quarter staff regarding the outer clothing to be worn by the troops, for several officers and not a few of the privates started on the voyage wearing light karki suits with white helmets. Before arrival at Cape Coast Castle the authorities, for obvious and very prudent reasons, decided on a change of costume, and the Indian dress was discarded in favour of the old and much more comfortable red tunic, while the colour of the helmets was altered from white to light brown. Tommy Atkins, with the ingenuity which usually characterises that individual, soon accommodated himself to the change of tone; one or two applications of a solution obtained from the bottom of his coffee-pot supplied the required colour, and although the tint was not quite so definite in all cases, or so evenly laid on as a true artist could appreciate still it answered its purpose quite well enough, and the aforesaid helmets being subsequently adorned round their bases with red, blue, or yellow bands easily denoted the special branch of the service to which the wearers belonged. But what shall I say concerning those disconsolate young officers who, being warned before leaving that their kit must be reduced to a minimum consistent with propriety, had considerately left their "Sunday-go" reds at home and were not in a position to fall in with the new instructions that were issued? Well, they had, of course, to don their patrols, and keep them on as long as they were under observation; but there were occasions when these thick blue coats proved too oppressive, and then these superfluous belongings were thrown aside *en route*, permitting our fellows to march much better and work considerably harder under their shirt sleeves. I am afraid some of the easy, go-as-you-please style of dress that was frequently observed out there would have shocked the nerves of some old martinets; but, happily for the comfort and health of our men, their day has gone by never to return let me hope; for if the officers who commanded this last expedition so judiciously had worked upon the lines of former days and screwed the men up to full regulation pitch there is no saying what might have happened; but of one thing I feel certain: that if the staff had been less considerate than they have been we should have been brought face to face with a much longer death- and sick-roll than has had to be recorded. All persons do not stand the effects of heat alike. An amount of clothes which one individual can wear in the tropics without any distress whatever will be intolerable to another equally healthy person. This fact was doubtless recognised by those who controlled affairs.

Another feature in the preparations at home has been the fitting out of the hospital ship *Coromandel* for service on the West Coast of Africa, a very important move in the right direction for supplying extra comforts and good medical attendance, with the best of nursing, to the sick and injured at the seat of war. This vessel, which came into the Royal Albert Docks on Feb. 26th from Cape Coast Castle, has been employed by the Government and expensively fitted up for the services required of her. She belongs to, and was chartered from, the Peninsular and Oriental Steam Navigation Company, having been used by them as a passenger steamer for some years past. She was built by Messrs. Caird and Co. of Greenock and is a ship of 4651·58 gross and 2783·6 nett tons register, her length being 400·3 ft., with a beam of 45·3 ft. and a depth of 29·25 ft. The engines are on the triple expansion principle—4200 indicated horse power—and can propel the vessel under favourable circumstances at a fraction over 14 knots per hour. Such a rate of speed, however, cannot always be maintained, for on her passage home, through some foulness of her bottom, caused by lying so long at anchor, a speed of only 12 knots could be got out of her. She is certainly a very handsome-looking craft viewed from without, and possesses a lower, main, and upper or hurricane deck, on the top of which superstructures containing officers' cabins have been erected. For a tropical hospital ship she has wisely been painted white, with a thin red moulding round her to relieve the monotony of colour, whilst her transport indicating number (75) in large block type-figures is on her quarter. This vessel is commanded by a R.N.V. officer, who, possessing the requisite number of hands on board belonging to that naval auxiliary service, is permitted to fly the blue ensign. On going below to the main deck, where the sick officers and men's quarters are, one is particularly struck with the advance that has been made in comfort on the old style. The ancient square canvas cots, swung by clews from bolts in the deck above, have now given place to the more cosy, evenly poised bedsteads capable of a momentum adjustment by a small metal check. These bedsteads can be fixed or they are allowed to swing at pleasure, while the addition of a neat wooden tray at the head of each cot, upon which food, medicine, or books can be placed within easy reach of the invalid is to be commended. Then, too, there are those small toggled lines suspended from the deck above just over the head of each bed, which, on being lowered, can at any moment be grasped by a patient and become a means of raising himself at such times as the nurses or attendants are busily engaged elsewhere. On this deck are the hospitals—the officers' aft and the men's forward. During the passage home the whole of the men's hospital not being required for use, a portion of it—in fact, a space stretching from side to side—has been given up for, and used as, an invalids' smoking-room. A very great boon it has proved too. When the weather became cold, and the men just recovering from fever could no longer pace the deck with any degree of comfort, they could at any rate (thanks to the principal medical officer's consideration for his charge) enjoy their "weed" below. On this deck, too, are the first-class saloon, passengers' cabins, pantries, galleys, engine-room, store-rooms, dispensary, operating-

room, waterclosets, and baths. Light and air are admitted by open deck spaces, skylights, and air-shafts, as well as by a series of scuttles arranged at equidistant spaces in two parallel rows round the ship. The upper row, unlike those on the lower deck, consists of circular plateglass discs, inserted into square iron ports which in any ordinary kind of weather can be raised by means of a chain lanyard, and large, square, glass windows inside, corresponding to the size of the port raised, are discovered. Wind and weather permitting these windows can be run back, allowing plenty of air to enter and circulate along the whole length of the ship. Moreover, should the entrance of sunlight prove at all annoying to the invalids and require to be excluded this can be at once effected by letting down a roller-blind put up for that purpose. I was also pleased to notice that the luxury of a punkah had not been overlooked by those who were responsible for the fitting out of the ship.

A word or two with reference to the waterclosets and bathrooms on board the *Coromandel*. The porcelain pans of the closets appear to be quite new and very good. The mechanism seems to work well enough, and being on the pull-down flush principle, they are evidently of the most recent and approved type. But their location appears to be somewhat too near the sick and sleeping accommodation, and the policy of the juxtaposition of bath-rooms, urinals, and waterclosets, only eighteen inches separating these departments from one another, certainly seems to be open to objection. Bath-rooms possibly without much risk might be as near as possible to the dormitories, but surely urinals and waterclosets could, I think, with advantage be placed at a greater distance from the sick than they are on board the *Coromandel*. What is there to prevent these closets being placed somewhere entirely isolated and by themselves?

The dispensary, situated on the port side, is a model of pharmaceutical neatness and arrangement, the area of cabin space devoted to this department being ample and the supply of drugs quite sufficient to satisfy the requirements of the most punctilious of dispensers. Opening out of, and just aft of, the dispensary is the operating-room, fitted up with all the most modern surgical appliances, including an excellent operating table (which, by-the-by, has never yet been used). The space devoted to operative purposes is too narrow and restricted and in any new hospital ship might with advantage be increased, so as not only to allow more elbow-room to the surgeon, but likewise more comfort and advantage to others who might be assisting him.

The *Coromandel* is, very properly, electrically lighted throughout. There is also a large and very complete ice-making plant and distilling apparatus on board, the latter capable of turning out some 3000 gallons of water per diem. I was informed that all water was passed through a filter before being given to any patient. Another great and important addition to creature comforts is to be found in the introduction of a complete laundry plant in this hospital ship. Such a useful desideratum for the purification of soiled linen and the cleansing of dirty clothes has been sadly overlooked by those fitting out steamers for long sea voyages. On this same deck there are winches evidently driven by steam as well as derricks. Now, if there is one thing more than another that causes extreme annoyance to passengers even in the best of health it is the noise caused by these steam-driven lifts when hoisting in or discharging cargo. To the sick the din is simply intolerable. In many of the larger and newer vessels the use of steam has been discontinued in favour of hydraulic power, which is found to be as powerful as, if not more powerful than, steam and is productive of little or no noise whatever, and it might therefore be employed on board vessels intended for hospital use. On the lower deck of the *Coromandel* there is another large hospital; there were some thirteen cases in bed, two rather serious ones, at the time of my visit. The patients one and all expressed themselves very grateful for the comforts and treatment they had received while on board. Want of space forbids my entering more fully into a description of all that was to be seen on or below deck; but I may say the main deck occupied by so many departments leaves but a limited space for promenade purposes—I mean as far as the non-commissioned officers and privates are concerned. True, there is a fine space on the upper or hurricane deck; but in trooping or passenger ships this is exclusively set aside for the use of the officers or first-class passengers; and although the officers belonging to the ship have done their utmost to make everybody comfortable, both on the outward and homeward voyage—and the vessel appears to have fairly well satisfied authorities in her dual capacity of transport and hospital ship—still after all the *Coromandel* is but a makeshift at the best, and I venture to think (many more agreeing with me in this respect) that the time has arrived for the Government to have a properly built and suitably equipped ship for hospital purposes only, a vessel that would be ready at any moment for the particular service required of her. The *Coromandel* was built in 1885 and has been chartered at something like £1000 per week, with an additional cost of nearly £4000 for putting up and taking down her present fittings. It would be interesting to know how far the accumulated cost of hiring the *Coromandel* would go towards building a suitable vessel.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Ladies' Charity and Lying-in Hospital.

THE troubles at this hospital, referred to in a former letter, have now reached a climax by the resignation of the staff—active, consulting, and out-door—with the exception of three, two of whom are ill and one away from home, nineteen in all. This action has been forced on them by the determination of the committee to push the alteration of the rules guiding the staff in their visits to the hospital, a proceeding so unreasonable that retention of office under such conditions would have rendered them unworthy of the respect of their brethren. It looks uncommonly as if the committee wish the hospital to be looked on as a midwives' charity, so great is their admiration for the female element, which is all-powerful just now. The committee may earn some *kudos* and avoid future injudicious action of a similar character by emancipating themselves from this feminine thraldom. If instead of being guided, as they now appear to be, by a ladies' committee, matron, &c., to the exclusion, practically, of the medical board, they will seek advice on medical matters from those who alone are competent to give it—viz., the medical staff—it will then be all the better for patients, committee, and subscribers. It is to be sincerely hoped that no medical men retaining their self respect will apply for the posts vacated under these circumstances by a competent and self-respecting staff.

Poisoning by "Transfer Pictures."

As the result of an adjourned inquest, held at Seaforth, on the body of a boy named Henry Bridge, evidence was given that some "novelty transfer pictures," which he had been in the habit of attaching to his hands and licking off with his tongue, contained lead paint,[1] and that the post-mortem symptoms were consistent with lead poisoning. The jury returned a verdict that deceased died from the effects of lead poisoning and recommended that the sale of the pictures should be prohibited.

Alleged Insanitary Shop Premises.

At the recent meeting of the Health Committee reference was made to a statement which lately appeared in *Truth* to the effect that the bedrooms occupied by employées in a large drapery establishment were in a dirty and insanitary condition. The medical officer of health, in reply, said that he had received no complaints, anonymous or otherwise, as to the condition of these sleeping apartments, and expressed his surprise that the matter should have been communicated to a London weekly paper to the exclusion of the local press. He also pointed out that all such establishments were under the examination of the corporation inspectors and that cards were provided showing where complaints should be addressed to.

Post-Graduate Course.

Arrangements are in progress for a post-graduate course of fifteen lectures and the same number of demonstrations in medical, surgical, and special subjects. The course will commence on May 12th and terminate on June 30th. Each lecture, which will occupy an hour, will be followed by a demonstration in one of the hospitals lasting from an hour to an hour and a half.

March 31st.

[1] We have tested in our laboratory specimens of these pictures for the ordinary mineral poisons, and one sheet contained a very large quantity of lead.

WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Vaccination Question at Cheltenham.

AT Cheltenham, on March 26th, a deputation from the Public Health Committee of the corporation waited on the board of guardians and urged that increased facilities should be given for vaccination. Last year the number of people vaccinated was fifteen and last week five. The Health Committee suggested that twenty-four medical men should be selected to vaccinate and revaccinate people at their own homes or at the vaccination offices. It is estimated that there are no less than 1534 unvaccinated children in Cheltenham and that during the past ten or twenty years only 25 per cent. of the people have been vaccinated. It was resolved to ask the sanction of the Local Government Board to the additional facilities for vaccination.

The Bristol Board of Guardians and Vaccination.

At the last meeting of the Bristol board of guardians, held on March 27th, the chairman moved—"That the resolution passed that the vaccination officers do not take proceedings for default in compliance with the Vaccination Acts, pending the issue of the report of the Royal Commission on Vaccination, be rescinded, and that authority be given to the officers to take proceedings from time to time as may be necessary against all persons who neglect to comply with the Vaccination Acts as to the enforcement of vaccination, and who have not been before proceeded against for such neglect." The vice-chairman seconded. The motion, it was explained, was the response to the letter received from the medical officer of health (Dr. D. S. Davies). It was stoutly contested by the anti-vaccinationists. The discussion lasted for an hour and a half, both sides freely quoting statistics. The resolution was, fortunately, adopted—but only by a majority of *one*.

A Gloucester Clergyman's Opinion on Vaccination.

The Rev. Henry Proctor, Vicar of St. Luke's, Gloucester, in the course of a letter to the local press on March 23rd, stated: "There are two families living just outside my garden, in one there are six children, five vaccinated and one not; the unvaccinated child is the only one that has taken small-pox. In the other, out of eight children, one unvaccinated one has died of the disease. In another case there were seven children. The father, mother, and four unvaccinated children have already died, another is hanging between life and death, the other two—who were the only vaccinated members of the family—have not even taken the disease. I could multiply instances, but I will simply add this remark: I am now visiting over 100 small-pox patients from day to day—60 in the hospital and over 40 in their own houses in this parish—and I believe I could undertake to go round from bed to bed and state almost without error which had been vaccinated and which not without any previous knowledge as to the facts, so marked is the difference in the effect of the disease in the two cases." The Vicar of St. Luke's is to be congratulated upon having so well shown in this letter the advantages of vaccination.

The Jenner Memorial Fund.

The Dean and Faculty of the Medical School of University College, Bristol, having consented to receive and permanently locate the valuable collection of mementos of Edward Jenner, known as the "Jenner Relics," it is desired to raise by public subscription the sum of £1500 in order to defray the cost of purchase from Mr. Frederick Mockler of Wotton-under-Edge. Each subscriber of one guinea and upwards will receive when the list is complete a silver medal, and to subscribers of not less than half a guinea a bronze medal will be presented, commemorative of the Jenner Centenary, May 14th, 1896. The Bristol newspapers of March 28th publish a list of subscribers up to March 27th, but the subscriptions at present fall very far short of the sum required. Subscriptions are being received by Messrs. Prescott, Dimsdale, Cave, Tugwell, and Co., bankers, Bristol. Intending subscribers will greatly oblige by sending in their names at their earliest convenience to Mr. W. H. Greville Edwards.

Gallantry of a Medical Man.

The committee of the Royal Humane Society on March 18th awarded their silver medal to Mr. T. H. Morris, M.B., C.M. Glasg., of Tylorstown, Glamorganshire, for distinguished gallantry displayed at the explosion in the Tylorstown Colliery on Jan. 27th, when fifty-seven lives were lost and the mine was wrecked. Dr. Morris entered the pit with an exploring party which, with great difficulty and at the imminent peril of their lives, rendered assistance to the imprisoned miners. The risk to all concerned was extremely great as independently of the danger of being buried alive by the falling coal there was the additional prospect of a second explosion.

Prosecutions by the British Dental Association.

At the instance of the British Dental Association H. W. Shallard and Osborne White, both of Cardiff, were summoned before the local stipendiary magistrate on March 25th for practising as dentists, not being registered under the Act of 1878. They were each fined 40*s.* and costs.

An Infectious Hospital for Dorchester.

On March 25th the new isolation hospital, which has been recently built by the Dorchester municipal authority at a cost of £1200, was opened and several cases of scarlet fever were admitted.

March 30th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Death of the Medical Officer of Health for Sunderland.

MR. J. WOOD, the medical officer of health for Sunderland, died suddenly at Millfield on Wednesday last from syncope. He was only forty years of age and leaves a widow and two boys.

Nurses' Home and Training School, Newcastle-upon-Tyne.

The annual meeting of this valuable institution was held at the home last week, Professor Philipson presiding. From the report it appears there are now seventy nurses and ten probationers. Upon the year's working there has been a profit of £305, and this sum has been divided among the nurses, the amount given to each being regulated by the time she has been on the staff. The great success which has attended the career of the home is very much due to the admirable management of the matron, Miss Emery. 618 cases were nursed last year.

Lecture on the Roentgen Process by Professor Stroud.

A most interesting lecture by Professor Stroud was by request repeated in the large chemical theatre of the Durham College of Science on Monday last to a large audience, when a series of experiments were performed illustrating the effect produced by these mysterious rays.

Stoppage of the Rainton Collieries.

The Marquis of Londonderry called together the men employed in these extensive collieries, some 4000 in number, a few days ago, and explained to them that as he had lost some £15,000 by working the Rainton pits during the year 1895 it would be necessary for him to close them. The noble Marquis, between whom and the miners the very best relations exist, submitted his balance sheet and took the men into his entire confidence. The stoppage of these pits will be a terrible misfortune to the district and to the county of Durham. At present the men work from bank to bank seven hours a day. If they worked longer, as they used to do, when there was more coal in the pits, and it was easier to win than is now the case, it is possible the work might be carried on, but against longer hours is the veto of the union.

Projected Exhibition in Newcastle during the year 1897.

It is proposed to hold during the year 1897, in the city of Newcastle-upon-Tyne, an exhibition on a large scale of local industries, representative of the products of local engineers, shipbuilders, and manufacturers, the proceeds of which are to be devoted to the building fund of the new infirmary. A guarantee of £10,000 is being raised. The infirmary committee has secured the services of Mr. Engel, who has brought several similar ventures to a successful issue in the north of England. It is believed that a substantial sum will by this means be raised.

March 30th.

SUPERANNUATION ALLOWANCE.—Mr. T. Francis, L.R.C.P. Edin., M.R.C.S., has been granted a superannuation allowance by the Brentford board of guardians of £107 13*s.* 4*d.* per annum.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

University of Glasgow.

THE University Court have appointed Dr. H. C. Cameron, Dr. D. C. McVail, and Sheriff Berny as delegates to represent the University at the Congress of the British Institute of Public Health to be held in the University buildings in July next.—The Professional Examinations for degrees in Medicine and Surgery, which have been in progress during the past week, give abundant evidence of the activity of the female undergraduate, for in all the published lists of successful candidates the names of women students are to be found prominent. Similar results are to be traced in the prize lists issued in the Faculty of Arts, where again the names of women students are to be found occupying honourable positions among the prize winners.—Mr. Thos. Gray, B.Sc., F.C.S., Lecturer on Chemistry in Queen Margaret College, has been nominated as secretary of the Scottish Branch of the Society of Chemical Industry, in succession to Mr. Stanley Muir, B.Sc., resigned.

Female Medical Officers.

At a meeting of the Govan parish council on the 26th ult. Mrs. Greenlees moved that lady doctors should be eligible as medical officers under the council. The chairman of the Medical Committee expressed his willingness to assent to the motion, and it was adopted. A medical member of the board, however, ventured to doubt whether the people in all the districts would have confidence in women as medical officers and suggested that the council should rather appoint a number of qualified midwives.

Glasgow Collegiate School Club.

The club, which consists of the "old boys" of the Collegiate School, celebrated its annual dinner on the 26th ult. A number of well-known medical men took part in the proceedings, and the dinner tables were decorated with flowers sent by Dr. Aikman of Guernsey. The newly elected president is Dr. William J. Fleming.

Glasgow Samaritan Hospital.

The annual meeting of the subscribers was held on the 26th ult., Sir James King, Bart., in the chair. The most interesting feature in the report was the announcement that the new hospital buildings will be opened in May next. There is every probability, too, that by that time the entire outlay will have been met by special subscription and that, therefore, the new building will start its career free from debt. The Bellahouston trustees have made a grant of £2000 to the building fund, Lord Overtoun has added £500, and another £500 has been obtained from various sources. There now only remains a balance of £1000, and a special effort is to be made to remove this before the hospital is opened.

April 1st.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Resignation of one of the Members of Parliament for Dublin.

THE sudden and unexpected resignation of the member of parliament for the College Green division of the city of Dublin, Mr. Joseph E. Kenny, M.P., L.R.C.P. Edin., L.R.C.S., L.A.H. Dub., has caused considerable interest in medical circles as well as among the general public. Mr. Kenny is now the coroner for the city of Dublin and is about to resign his seat in the House of Commons on account of the difficulty he finds in attending with sufficient constancy to his duties there. It will be remembered that Dublin has been represented in Parliament for long periods by members of the medical profession such as the late Sir Dominick Corrigan and Dr. Robert Lyons.

The Royal College of Surgeons of Ireland.

More than eighty students entered for the half-yearly preliminary examination at the Royal College of Surgeons in Ireland on March 24th. The fact indicates that the popularity of medicine as a profession here has not diminished.

The Downpatrick Guardians.

With reference to the inquest held in Downpatrick on March 13th,[1] in which the jury blamed the guardians for not providing proper medical assistance when their medical officer was attending the assizes, and to which attention was drawn in the House of Commons, the Local Government Board have instructed their inspector, Dr. Clibborn, to hold a sworn inquiry into the circumstances of the man's death.

Vaccination Prosecutions in Londonderry.

A merchant has been prosecuted by the Londonderry board of guardians for the fourth time under the Compulsory Vaccination Act, he having been fined on the three previous occasions. As the defendant had not complied with the provisions of the Act the guardians on March 14th passed a resolution ordering a fourth prosecution, which took place on March 30th. After it had been proved that the defendant's child, born on Sept. 1st, 1893, had not been vaccinated the father stated that if he were prosecuted twenty-four times he would not allow his child to be vaccinated. As the magistrates were equally divided as to whether or not a penalty should be imposed "no rule" was marked. In another case the same course was taken.

The Battle of the Clubs at Cork.

The fight with the clubs goes on gaily as far as the medical men are concerned. Nearly eighteen months have elapsed and the sixty medical men practising in Cork stand loyally together, shoulder to shoulder, as much so to-day as at the very inception of the movement. Such admirable discipline has necessarily produced a profound impression on the clubs and a public opinion favourable to the medical men is being formed slowly but steadily in Cork. A writer signing himself "Non-Medicus" has done yeoman's service. His letters are models of diction and close reasoning. In scathing terms he criticises the pharisaical hypocrisy exhibited by the clubs in referring to what they are pleased to call "the boycotting of the sick bed" by the medical men, and he aptly reminds them that there was no condemnation of the boycotting of the sick bed when a poor patient suffering from consumption was refused sick pay by his brother members because he had thought fit to ignore the services of the club medical man and call in those of one of the regular practitioners. Rejoinders of that kind have proved too much for club correspondents and "Non-Medicus" remains master of the field.

April 1st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Health of Marseilles.

AT the last meeting of the Société de Médecine Publique et d'Hygiène Professionnelle M. Genis gave an *aperçu* of the important sanitary works now nearly completed in Marseilles. When the new drainage scheme is applied the sewage of the town will flow into the sea, the cost of the undertaking being 30,000,000 francs. M. Genis complains that the municipality has hitherto taken no steps whatever to utilise the new system of drainage. The Minister of the Interior has vainly urged the city authorities on four occasions to bestir themselves. As things stand, the sewage for the most part flows into the subsoil, which is thus converted into a gigantic cesspool, whilst the 122 kilometres of drains receive only the rainfall. It is not difficult to reconcile with this astonishing supineness the discreditable death-rate of the town—32 per 1000. Only last year the mortality from small-pox was very high. What can be thought of the sanitary notions of a municipality which finds that its duty was performed during the last epidemic of cholera by burning 60,000 francs' worth of sulphur in the drains?

Application of the New Photographic Method.

Professor Pinard exhibited at the Académie de Médecine on the 24th inst. a photograph obtained by the Roentgen process of the fœtus enclosed in a thick-walled uterus which had been preserved in spirit for four months. The image of the skeleton of the full-termed fœtus was clearly seen after an exposure of forty-five minutes. It would appear,

[1] THE LANCET, March 21st, 1896.

however, that the living uterine tissues are more easily permeated by the "x" rays, for the images of six fœtuses photographed through the uterus of a living guinea-pig, and shown by Professor Pinard, are more clearly defined.

The Study of Anatomy at Montpellier in Old Times.

M. Gilis, Professor of Anatomy at Montpellier, has recently published his inaugural lecture at that Faculty in the *Revue Scientifique*. He reminded his audience that Montpellier was during the Renaissance the great medical school of France, and that crowds of foreigners repaired thither for educational purposes. Some of these students became celebrated. It is sufficient to quote the names of Felix and Thomas Plater, Felix and Gaspard Bauhin of Bâle, and the Dane, Olaüs Wormius. Despite the difficulty of procuring subjects for dissection anatomy was ardently studied at the Faculty. The method adopted for collecting subjects would hardly commend itself to nineteenth century ideas. At nightfall the students, attired in their cloaks and armed with their swords, would sally forth on resurrectionist expeditions, the scene of their lugubrious operations being the cemetery of the Convent of Saint Denis. Arrived at their destination they would frequently be accorded a rough reception by the monks armed with crossbows. The enthusiasm of the professors for their art sometimes carried them to great lengths. Thus Rondelet begged his friend and colleague, Fontanus, then very ill, to allow his body to be dissected after death. Before his pupils he also dissected the single placenta of twins—his own children. Nor did he shrink from practising a public post-mortem examination of the body of his own son.

Pharmaceutical Frauds.

The Paris Municipal Laboratory has been busy lately in analysing specimens of quinine and antipyrin bought at different drug establishments in the city. Numerous samples were found to be adulterated with bicarbonate of sodium to the extent of 50 per cent. It would appear also that iodoform gauze is extensively coloured with aurantine, and that such adulteration reduces the proportion of iodoform from the normal 25 per cent. to something below ¼th per cent. A good plan by which to discover the fraud is to soak the suspected gauze in tepid water, when the aurantine, if present, is dissolved and colours the water a brilliant yellow.

March 31st.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Anti-Malarial Measures.

THE Marchese di Rudini, head of the new Government, has begun well. I am not referring to his success in Chamber and Senate in vindicating his programme, especially as regards the African situation, but rather to the initiative he has taken in furthering a far more commendable policy—the reclamation of derelict or marsh lands from the fevers that haunt them and their subjection to agricultural industry. One of his very first acts has been to issue a series of precautionary measures against the diffusion of epidemics of malaria, taking as his starting-point those localities devoted to rice cultivation. From the Home Office (of which he holds the portfolio) he has, under the advice of the Consiglio Superiore di Sanità, published a paper consisting of six articles or heads, conveying as many ordinances for protecting the labourers in rice cultivation and the districts in which it is carried on. The first deals with the appointment of a Special Commission composed of the provincial medical authorities, an engineer, and an agricultural expert, charged with the duty of testing and reporting to the Prefect the cases in which demands for rice cultivation may be safely conceded—cases, that is to say, where the concession of such demand can be freely granted without compromising the health of the labourer or the sanitary conditions of the vicinity. There are rules in existence for the protection of both these interests—that of the working hands and that of the health of the surrounding population—and guided by these the Commission will proceed to grant or withhold the concessions alluded to. Should the concessionnaire in the process of carrying out his operations depart from the prescriptions laid down the Prefect shall then be empowered to withdraw the privilege conceded. Nay, more; if, in spite of all due observance of those prescriptions, the locality or the soil under rice cultivation develop unforeseen conditions prejudicial to health, the Prefect shall again be entitled to intervene and withdraw the concession or suppress the industry for a given number of years, always subject of course in so doing to the provincial sanitary council as advised by the Commission above indicated. The concessionnaire shall have no claim to indemnity for loss by the withdrawal of his concession. Other prescriptions relative to what may be called the business aspect rather than the hygienic aspect of these ordinances are minutely given and need not be detailed here; but the step taken by the Di Rudini administration is in all respects a meritorious one and forms, let us hope, the prelude to others equally calculated to raise the standard of health in the all too severely visited agricultural and pastoral regions of Italy. As I write the most gratifying report is handed to me on the Colonia Agricola di Ostia—a district on the Latin shore so haunted by the palustral miasm that ten years ago it was habitable only in winter, being for nine months out of the twelve a scene of desolation and death. A company from Ravenna to which the cultivation of this "regione morta" was conceded has been able to overcome by drainage and agriculture the pestiferous influences of the "stagno di Ostia," and at the cost of some 200,000 fr. has established a sanitary and agricultural "plant" which will not only maintain but extend the anti-malarial conquests already achieved. Only eighteen miles from Rome, that region, once an opprobrium to the civilisation and enterprise of the capital of United Italy, is now on the way to become a standing honour to both, and the institution of a local pharmacy and the provision of a medical staff are now only required to put it on a level with the best of those reclamations which year by year are lessening the area of "Italia irredenta."

March 28th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Gratuitous Hospital Treatment.

As I have already stated,[1] the Vienna Medical Chamber has energetically protested against the abuse of hospitals by well-to-do patients, and has even proposed that those who apply for gratuitous treatment should be required to produce evidence that they are really necessitous. The managers of the Polyclinic, however, are satisfied with things as they are and point out in a pamphlet that the number of well-to-do people gratuitously attended in their establishment hardly exceeds 5 per cent. As the number of out-patients treated there amounts to about 50,000 in the course of a year it follows that the Polyclinic has been resorted to by about 3000 patients who were in a position to pay for medical assistance. The public, in fact, believe that they have a right to gratuitous medical attendance, and one of the consequences is that there are a great many medical men whose income hardly amounts to £40 a year. The number of practitioners in Vienna has, moreover, increased from 844 in 1870 to 1179 in 1880 and to 2000 in 1895; this is in a population of 1,400,000, whereas in Berlin, with its 1,800,000 inhabitants, there are only 1900 medical men. At a meeting of the Medical Society of the Southern Vienna Districts Dr. Kürth said that if this state of matters continues the poor medical man will soon form a counterpart to the poor country schoolmaster.

The Function of Hair.

A highly interesting paper on the Function of Hair has been read by Professor Exner at a meeting of the Medical Society. He said that writers have hitherto occupied themselves mainly with speculations on the circumstances which have led to man becoming denuded of his hairy covering. The hairs, however, are not only degenerated organs, but have also to fulfil some functions. There is a group, such as the eyelashes and eyebrows, for instance, which are sensorial organs, possessing tactile functions, and, moreover, serve as a protection to the eyes. In places where two integumentary surfaces are in contact, such as in the axillary region and in the fold between the scrotum or the labia majora and the leg, they act as rollers and facilitate the gliding of the integumentary surfaces on each other. A third function of the hairs consists in the equalisation of surface temperature.

[1] THE LANCET, Aug. 24th, 1895, p. 473.

There is no doubt that the hair of the scalp protects the head against external cold and also prevents the loss of heat through the very low thermal conductivity of the hair cylinders and of the cushion of air intermingled with them.

The School of Medicine.

According to a report which has just been published the Vienna School of Medicine was attended by 3674 students during the past winter half-year, comprising 2211 ordinary and 1463 extraordinary students. The teaching staff consisted of twenty-nine ordinary professors, thirty-four extraordinary professors, and ninety-three *privat-docents* and assistants.

March 30th.

MEDICAL TRIAL.

QUEEN'S BENCH DIVISION, HIGH COURT OF JUSTICE.

(Before Mr. Justice HAWKINS.)

KITSON *v.* PLAYFAIR AND WIFE.

THIS case, part of which we reported in our issue of March 28th, was concluded on Friday last. We continue the report:—

Mr. Arthur Kitson, the plaintiff's husband, examined by Mr. Tindal Atkinson, said he left Sydney at the end of September or beginning of October, 1892. His wife was always suffering and in the doctor's hands. When he left Sydney he went to Port Darwin. His wife was then so ill that Dr. Ogg advised a long sea voyage. He wrote to his brother James of this, and saying that he intended sending her to England. From Port Darwin he went to Hongkong on his way to Honolulu. He had a letter from his wife on June 6th, 1894, which he had destroyed. This letter had reference to the accusations made by Dr. Playfair. He received another letter at Sydney to the same effect. He left for England as soon as he could, and arrived about Aug. 29th, 1894. She communicated to him all that had occurred and placed in his hands all the correspondence which had passed between her and Dr. Playfair. He then wrote to Sir James Kitson.

Cross-examined by Sir Frank Lockwood: He allowed his family to believe that he had surreptitiously visited England. He did so because he thought they wished to believe it. He had received letters from Sir James Kitson and Dr. Playfair withdrawing the accusations "after a fashion."

This closed the case for the plaintiffs and Sir F. Lockwood addressed the jury on behalf of the defendants. His first duty was to submit to his lordship that the occasions on which the libel and slander were published were privileged. Having regard to the relations existing between the parties he contended that the communication by Dr. Playfair to his wife was justifiable and the communication was privileged unless it could be shown that he was actuated by an indirect motive or by malice *per se*. With regard to the communication between Mrs. Playfair and Sir James Kitson, the communication was made by a sister to her brother in regard to the conduct of their sister-in-law, and they had a joint interest in the communication being made. Here, again, unless it could be shown that Mrs. Playfair was actuated by some malice or indirect motive the occasion was privileged.

Mr. Justice Hawkins: The question of actual relationship does not seem to me to cover the ground. Would there be privilege if the communication were made to an aunt?

Sir F. Lockwood: The point here is that these people were deeply interested in the conduct of their brother's wife, with whom they were associating on terms of intimacy.

Sir F. Lockwood, continuing, said he knew the great difficulties which lay in his way in putting forward Dr. Playfair's view of the case. Mr. Walton had drawn a pathetic picture of the sufferings of Mrs. Kitson, which he had been able to supplement to some extent by the testimony he had called. He was not going to ask the jury to approach the case in a hard-hearted way, but to judge temperately and fairly of the conduct of Dr. Playfair. Mr. Walton had charged Dr. Playfair with being a cruel and hard inquisitor, and made it impossible that his speech should go before the world uncontradicted. This man was the first to throw open his door to her. Shortly after she arrived in England Dr. Playfair examined her. She had complained to Mrs. Playfair of the state of her health and that lady suggested that Mrs. Arthur Kitson should consult her husband. Dr. Playfair examined her generally as to her physical condition and stated that there was nothing organically wrong. With reference to what occurred later he would not ask the jury to say that this lady had had a miscarriage or to say that she had not been chaste. All he asked them to say was that Dr. Williams was justified in the conclusion he had come to and that he *bonâ-fide* believed to be true that which he communicated to Mrs. Playfair.

Dr. William Smoult Playfair, examined by Mr. Charles Matthews, said he was Doctor of Medicine, Fellow of the Royal College of Physicians of London, Professor of Obstetric Medicine and teacher of diseases of women and children at King's College Hospital. His feelings towards the plaintiff were those of complete friendship. After her arrival in England she consulted him with regard to her health, and he made an examination as to the general state of her health. On Jan. 16th, 1894, he was called in by Dr. Williams. Before seeing her he met Dr. Williams and talked over the case, and the latter described it to him. They afterwards saw the lady together. She seemed generally ill, and complained of some hæmorrhage which had existed for some time. He thought the trouble was a somewhat profuse period. On Feb. 23rd he saw Dr. Williams in consultation. In the course of the examination he found the neck of the womb dilated to the size of a five shilling piece. Within the neck of the womb and above it he found a soft fungated mass, which he at first took to be a intra-uterine cancerous growth, but it was impossible to make a sufficiently complete diagnosis. He sent Dr. Williams for some chloroform, and when he returned they put the plaintiff under its influence. He then found that the mass was not growing from the interior of the womb and that it was easily scooped out and removed. He then found the mass to be a portion of fresh placental tissue of a spongy consistence and containing fresh blood in its interstices. After the operation he formed the opinion that Mrs. Kitson had had a recent miscarriage. There were not two administrations of chloroform. It was one continuous administration, with a stoppage while he showed Dr. Williams the substance which had been removed. He did not make use of the words, "I do not know what else it can be. I know very little about her, she may have been playing hanky-panky." Dr. Williams did not say, "I do not think it can be anything like that. She has submitted to every examination and been perfectly candid." She did not struggle up and say: "Oh, Dr. Playfair, for God's sake let me go now if you think there is anything wrong." It would have been impossible. He did not pat her and say: "There, there, my dear, it is all right; we think it is a cancerous growth." He did not say, "Give her some more." The substance he removed was certainly not, in his opinion, a blighted ovum. It was a piece of fresh placental tissue. A blighted ovum was the entire product of conception which had perished in the womb and undergone certain degenerative changes and which was eventually thrown off. It varied in size from that of a duck's egg to that of a small melon. He would not expect it to lie loose in the uterine cavity.

Cross-examined by Mr. Lawson Walton, he said that it was on the assumption that Mr. Arthur Kitson had been in Australia that he formed an opinion adverse to the plaintiff's honour. He formed it solely on his medical examination.

Mr. Lawson Walton: Do you retain that opinion still?

Dr. Playfair appealed to his lordship as to whether he was obliged to answer that question and eventually replied: I do.

Mr. Lawson Walton: Then why had you not the courage and manliness to put that on record in your pleadings?

Witness: I placed the case in the hands of eminent counsel and I was satisfied to act on their advice.

Mr. Lawson Walton: You thought it more politic?

Witness: I thought it more judicious.

Mr. Lawson Walton: Then, sir, why did you not insist on your counsel raising that issue in order that this lady might have the opportunity of refuting it?

Witness: Because I do not think it judicious to insist on raising issues not advised by counsel.

Mr. Lawson Walton: Do you still tell the jury that, notwithstanding the lady's oath and her husband's and the opinion of Dr. Spencer, you persist in your opinion?

Witness: I do. Continuing, witness said in coming to this conclusion he rejected all but medical considerations. He rejected all moral considerations, and the fact that plaintiff called in to attend her a member of her own family. It did not strike him as extraordinary that she asked him to wait until her husband came back. Dr. Spencer's evidence counted for nothing in his mind.

Mr. Lawson Walton: How much evidence of other doctors would serve to change your opinion?

Witness: No amount; for none saw it under the same conditions as myself. He never believed that Mr. Arthur Kitson had been in England.

Re-examined by Sir Frank Lockwood: He did not believe the statement; he accepted it that Mr. Arthur Kitson had been in England. The substance referred to in *Charpentier* bore no relation to the substance he removed from plaintiff. He had no desire to make imputations of unchastity against Mrs. Kitson.

Dr. Muzio Williams was then examined by Mr. Matthews, and detailed his attendance on Mrs. Kitson and the calling in of Dr. Playfair. On Feb. 23rd Dr. Playfair sent him to get some chloroform, and he administered it while Dr. Playfair made the examination and performed the operation. Dr. Playfair removed a piece of fresh placental tissue and its condition indicated to him (Dr. Williams) a three months' pregnancy. The tissue was spongy and contained fresh blood. Dr. Playfair said "This is terrible. It is a piece of placenta. I did not know the lady before she married Arthur Kitson." Witness did not recollect Dr. Playfair having said anything more. Shortly after Dr. Playfair left, Mrs. Kitson was not conscious when he left the room. He did not remember Dr. Playfair using the words, "I know very little about her. She may have been playing hanky-panky." He (witness) did not say "I do not think it can be anything like that," neither did he say she had submitted to every examination and been perfectly candid. The lady did not struggle up and say the words she alleged she uttered. He (witness) patted her and said, "It is all right." She said, "What is it you accuse me of?" I said, "We have not accused you of anything; we have not quite finished, go on breathing." Nothing was said about the cancerous growth. Witness was then cross-examined by Mr. Lawson Walton as to his action in refusing to give any information to plaintiff's solicitors except through defendant's solicitors.

Dr. Hugh Playfair, curator of King's College Museum, was next examined. He said the substance submitted to him by Dr. Playfair was undoubtedly placenta, which had only very recently ceased discharging its functions. Microscopical examination confirmed this opinion. Cross-examined by Mr. Lawson Walton witness said he heard Dr. Spencer refer to a period of eighteen months, but that was quite impossible. At the outside the piece could not have been more than ten months old.

Re-examined by Sir Frank Lockwood: A placenta of eighteen months would be perfectly different in appearance. It would be tough, hard, and fibrous, and partially discoloured. Moreover, the microscopical appearances would be totally different. There would be signs of degeneration and atrophy of the chorionic villi and an enormous overgrowth of fibrous tissue. None of these conditions were in the substance submitted to him.

Mr. Bland Sutton, professor of pathology at King's College, gave evidence as to having received specimens for examination which were undoubtedly placental tissue. It was not possible that this could have been formed in December, 1892, and removed in March, 1894.

Sir John Williams, examined by Sir F. Lockwood, gave evidence substantiating in the main the evidence of the previous medical witnesses. With regard to the matter of professional confidence, witness said there was no hard-and-fast line in the maintenance of professional confidence.

Sir Frank Lockwood: What are the considerations which do affect medical men in regard to professional confidence?

Witness: As a general rule medical men should hold inviolate professional confidence.

Sir Frank Lockwood: Are there exceptions to that rule?

Witness: The exceptions are when there are higher claims upon the man, such as in a court of justice. With regard to crime, a medical man is obliged to inform the Public Prosecutor of any crime which has been committed or it is intended to commit. The higher claims that a man's wife and children have upon him justify him in taking every measure to protect them.

Cross-examined by Mr. Lawson Walton: Do you consider secrets obtained in the course of professional attendance the secrets of the patient or the secrets of the medical man and under the absolute control of the medical men?

Witness: It is the secret of the patient.

Mr. Lawson Walton: Do you consider the medical man is bound to consult the patient before he divulges that secret?

Witness: No.

Mr. Lawson Walton: Do you say that the medical man is the sole judge without appeal of the circumstances under which he should publish that knowledge to the world?

Witness: He is and he must be.

Mr. Lawson Walton: If he thinks he is entitled to do so, is he at liberty, if he thinks it is justified, to divulge it to anyone?

Witness: No, I do not think so.

Mr. Lawson Walton: Do you contend that the medical man is entitled, whether he be discreet or indiscreet, to disclose the secret without communicating with his patient?

Witness: I cannot answer that question yes or no.

Mr. Lawson Walton: Who is to decide the circumstances under which he may publish the secret to the world?

Witness: The courts of law in some instances.

Mr. Justice Hawkins: Suppose a medical man were called in to attend a woman, and in the course of his professional attendance he discovers that she has attempted to procure an abortion. That being a crime under the law, would it be his duty to go and tell the Public Prosecutor?

Witness: The answer of the College of Physicians to that very question was "Yes."[1]

Mr. Justice Hawkins: Then all I can say is that it will make me very chary in the selection of my medical man.

Mr. Lawson Walton: Who is to be the judge of the justification of the claim of wife and children to allow of the divulging of a secret the property of a patient?

Witness: The medical man himself.

Mr. Lawson Walton: Who is to say the medical man is wrong?

Witness: A court of law may.

Sir William Broadbent, examined, said he was a Doctor of Medicine and a Fellow of the Royal College of Physicians of London and Senior Censor on the board of the Royal College of Physicians.

Sir Frank Lockwood: Do you agree with the rule with regard to confidence in your profession as expressed by Sir John Williams?

Witness: The rule is a very strong unwritten law that no confidence made to a medical man shall be divulged.

Sir Frank Lockwood: What are the exceptions?

Witness: The exceptions are such as have been stated by Sir John Williams, that we are compelled to divulge confidences in a court of law and sometimes in order to prevent crimes. There are, in my judgment, also certain circumstances under which as a man of honour and acting under a strong sense of duty it might be necessary to divulge what is called a professional secret.

Sir Frank Lockwood: Do you recognise the exceptions made by Sir John Williams in favour of wife and family if it is a case where the medical man has clear convictions?

Witness: I think so. It is difficult to formulate an abstract opinion of this kind. It is conceivable that it might be necessary to divulge secrets under various circumstances.

Cross-examined by Mr. Lawson Walton: The disclosure should only be made in the last resort when it becomes inevitable?

Witness: Certainly.

Mr. Lawson Walton: If the object can be effected in a way short of divulging a secret, it ought to be done in that way?

Witness: Yes.

Dr. Champneys, F.R.C.P., agreed with the medical evidence of Sir John Williams respecting a blighted ovum, and

Sir Wm. Priestley, F.R.C.P., also gave testimony in respect of the same evidence.

This closed the case for the defence, and Sir Frank Lockwood and Mr. Lawson Walton addressed the jury on behalf of their respective clients.

Mr. Justice Hawkins, in summing up, said the plaintiff had brought this action for slander and libel. The charge made against her was that after she had come to England from Australia she had had adulterous intercourse with some person, the result of which was a miscarriage. To that the defendant had pleaded, first of all, that the words were not spoken or published at all; and, secondly, that if they were, they were published under circumstances which did not afford justification, but which robbed the libel or slander of its malicious character.

Mr. Justice Hawkins then dealt with the main facts of the case leading up to the question of privilege. The action was brought for the communication of the libel not only to Mrs. Kitson, but to Sir James Kitson, so that the question as between the husband and wife was not now before them. But since that question was discussed in the course of the case he would touch upon it, though what he said must not be taken to be a ruling on the point. The medical profession might, no doubt, discuss among themselves rules for their own guidance, but they had no power to impose the rules they made upon the public. With regard to the question of the exception to the unwritten rule of professional secrecy, he did not altogether agree with the medical evidence on that point. With regard to cases where it was said the doctor should inform the Public Prosecutor, the judge himself might in some cases refuse to commit a medical man for contempt in refusing to reveal confidences. Each case would be governed by the particular circumstances, and the ruling of the judge, deciding no doubt according to the law, would be the test. If the doctor were called in merely to attend a woman and give her advice his lordship doubted very much whether he would be justified in going to the police and saying, "I have attended a poor woman who has been trying to procure an abortion." That would be a monstrous cruelty. The rule did not meet with his approbation and he hoped it would not meet with the approbation of anybody else. There were cases, no doubt, in which it was obvious that a medical man should inform. He only protested against that rule being said to be applicable to all cases. There was a third objection—namely, a communication between the doctor and his wife or children in order that they might be protected. That required a great deal of consideration and it was a very delicate question.

[His lordship commented upon the action of Dr. Playfair in refusing to allow Mrs. Kitson an interview in order to clear herself, and, reading the correspondence, referred to the tight corner in which Mrs. Kitson had been placed.]

Mr. Justice Hawkins submitted the following questions to the jury: (1) Were the words uttered as alleged true? (2) Did the defendants believe the words to be true? (3) Were they uttered in good faith? (4) Were they uttered not from a mere sense of duty, or from some indirect motive or to gratify feelings of ill-will, anger, or irritation against the plaintiff or her husband?

The jury then left the box, and after an absence of about an hour answered the first question in the affirmative. To the second they said, "Yes; but Dr. Playfair did not afford the plaintiff reasonable time and opportunity for an explanation." To the third question they answered, "No," and to the fourth that the words were not uttered from a mere sense of duty but from an indirect motive. Damages were assessed at £2,000.

Mr. C. W. Mathews: I apply for a stay of execution on the ground that there was no evidence of malice.

Mr. Justice Hawkins: I will certainly not grant it on that ground.

Mr. C. W. Mathews: I ask for it on the ground that the occasion was privileged ——

Mr. Justice Hawkins: But malice is found by the jury.

By Mr. C. W. Mathews: And also on the ground that the damages are excessive.

Mr. Justice Hawkins: No.

Eventually his lordship agreed to consider the matter on Monday morning, March 30th, when

Sir Frank Lockwood renewed the application for stay of execution pending appeal.

Mr. Justice Hawkins: I have fully considered the matter and I have made up my mind. If I had disapproved of the verdict of the jury I should have granted the application for a stay of execution in the first instance upon terms. I always think one ought not to interfere with the verdict of the jury unless one is satisfied it is wrong. I ought to let you go to the Court of Appeal for the stay.

Sir F. Lockwood: My lord, I have come to an arrangement with my learned friend which will relieve us from going to the Court of Appeal. We have arranged for a stay by consent on the terms of a sum of money being paid over to the plaintiff unconditionally.

[1] Our special reporter was under the impression that the answer of the witness was as recorded above, but Sir John Williams has since written to The Times to correct this statement, which should be: "The last legal opinion upon that very question obtained by the Royal College of Physicians is 'Yes.'"

Medical News.

VICTORIA UNIVERSITY: FACULTY OF MEDICINE.—The following candidates passed the under-mentioned examinations in March:—

SECOND EXAMINATION.

A. Anatomy and Physiology.—J. W. Aldred, Owens College; E. L. Anderson, University College; D. A. Ashton, Owens College; J. W. Barber, Yorkshire College; T. T. Bark, University College; W. J. S. Bythell, Owens College; John Craig, Owens College; Willie Cunliffe, Owens College; Harry Dunk, Yorkshire College; H. M. Fletcher, University College; E. W. Floyd, Owens College; J. P. H. Greenhalgh, Owens College; J. T. Grierson, University College; W. S. Henderson, University College; E. M. Hime, Yorkshire College; J. A. Howard, University College; Frederic Hoyle, Owens College; H. H. McNabb, Owens College; E. J. Martin, Owens College; B. C. Middleton, Owens College; Joseph Moreton, Owens College; Edgar Newhouse, Yorkshire College; W. P. Noall, Owens College; Harry Osborne, Owens College; W. F. Oyston, Yorkshire College; J. A. Reed, Yorkshire College; W. H. Richardson, Owens College; Ambrose Spong, Yorkshire College; Edward Trotter, Yorkshire College; Edward Turton, Yorkshire College; G. C. Walker, University College; T. H. Wignall, Owens College; and O. H. Woodcock, Owens College.

B. Materia Medica and Pharmacy.—H. M. Cockcroft, Owens College; P. A. L. Foulds, Owens College; E. C. Hulme, Owens College; S. C. Moore, University College; Joseph Moreton, Owens College; William Sankey, Owens College; W. H. Tattersall, Owens College; and O. H. Woodcock, Owens College.

The Scholarship in Medicine was awarded to Joseph Moreton, Owens College.

FINAL EXAMINATION.

Part I.—R. W. Bollans, Yorkshire College; Francis Darlow, Yorkshire College; J. H. Davies, University College; J. F. Hodgson, Owens College; E. E. Laslett, University College; Alexander Lawson, Owens College; G. G. Lawson, University College; Henry Mackennal, Owens College; F. E. Marshall, University College; Frank Prichard, Owens College; Graham Renshaw, Owens College; A. L. Rhind, Owens College; A. B. Smallman, Owens College; H. de P. B. Veale, Yorkshire College; Alfred Wightwick, Owens College; D. O. Williams, Yorkshire College; R. H. Wilshaw, Owens College; and William Wright, Owens College.

Part II.—W. S. Badger, University College; G. H. Bishop, Owens College; S. R. Christophers, University College; William Dyson, Owens College; John Hartley, Owens College; John Hay, University College; J. A. MacLaren, Owens College; D. W. Main, University College; J. F. Rimmer, Owens College; E. A. Smith, University College; and Bernard Stahlknecht, University College.

The following were awarded Honours:—*Class I.*: S. R. Christophers,

University College, and E. A. Smith, University College. *Class II.*: John Hay, University College.

UNIVERSITY OF GLASGOW.—The following have passed the First Professional Examination (new regulations) for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subject or subjects indicated after their respective names (B., botany; Z., zoology, P., physics; C., chemistry):—

Adolph Anderson, B., P.; John Anderson, Z., P.; Gavin Barbour, Z., P.; James Oastler Barclay, Z., P.; Ernest George Dryden Benson, B.,Z.; Alexander Binning, Z., P.; William Herbert Brown, Z., P.; John Douglas Brownlie, Z., P.; Patrick Thomas Cairns, P., C.; Thomas Bullough Calland, Z., P.; Samuel James Cameron, Z., P.; Thomas Carruthers, M.A., B., Z., C.; Edward Provan Cathcart, B., Z., P.; Robert Clark, Z., P.; John Craig, Z., C.; George Morris Crawford, C.; Charles Peter Garvie Crichton, P., C.; Charles Campbell Cuthbert, B., P.; Arch. William Wallace Davidson, B., C.; James Davidson, M.A., B, Z.; Alexander Doig, Z., P.; John Downie, Z., P.; John Pinkerton Duncan, Z.; John Forrest, Z., P.; Eric Dalrymple Gairdner, P., C.; George Gardner, P.; John Gardner, B., C.; George Garry, B., P.; James Gemmell, B., C.; William Girvan, B., Z.; John Gracie, Z., C.; John Gregor, Z., P.; Robert Archibald Hamilton, Z., P.; Archibald Wilson Harrington, B., C.; Leslie Charles Brougnton Head, B., C.; James Macpherson Henry, Z., P.; Thomas Inglis, B., P., C.; John Kennedy, B., C.; Alexander King, Z., P.; William Henry Kirk, B., P.; James Dickson Laidlaw, B., P.; John Francis Lambie, Z., P.; Norman Maclean Leys, Z.; James Dunlop Lickley, Z., P.; Donald M'Farlane Livingstone, Z., P.; David Longwill, B., P.; Jacob Mains, Z., P.; Andrew Mair, Z., P.; Robert M'Nab Marshall, Z., P.; Allan Martin, M.A., Z., C.; James Millar, B., C.; Hugh Miller, Z., C.; William Archibald Mills, B., Z.; Alexander Robert Moir, B., Z., P., C.; Peter Moir, B., Z., P., C.; Daniel Morrison, B., P.; Alexander Munro, Z., P.; James Hogg MacDonald, B., C.; James William M'Dougall, B.; George Steventon M'Kimmon, Z., P.; James Mackinnon, B., P.; Charles Forbes Maclean, C.; Norman Forbes Macleod, C.; John M'Millan, C.; Burgess M'Phee, B., Z.; Thomas Neill, Z., C.; Robert Orr, Z., C.; James Patrick, B., Z., P.; William Barr Inglis Pollock, Z., C.; John Reid (Lanark), B., Z.; Peter Mackenzie Reid, Z., P.; John Duncan Richmond, Z., P.; William Alexander Riddell, B., P.; Henry Thomas Roberts, B., Z., P., C.; Arthur Robin, B., C.; James Crawford Ross, Z., P.; David Russell, Z., P.; Malcolm Scott, P., C.; David Shannon, Z., P.; Edgar William Sharp, Z., P.; Malcolm Alexander Sinclair, B., P.; Archibald Smellie, B., C.; John Steele Smith, B.; David Spence, Z., P.; Peter Alexander Steven, B., C.; Andrew Stewart, Z., P.; John Strathearn, Z., P.; Charles Pinkerton Thomson, C.; Joseph Swinburne Townley, B., Z.; James Cameron Turnbull, Z., P.; John Turnbull, P., C.; Arthur Vost, C.; Albert Ernest Wainwright, Z., P.; George White, Z., P.; Robert George White, Z.; George Henry Wildish, B.; Hugh Patrick Wright, Z., P.; and John Young (Bearsden), B., P. *Women*: Lizzie Thomson Fraser, P., C.; Helen Mary Gordon, P.; Jane Grant, B., Z.; Lila Stephenson Greig, P., C.; Catherine Spence Howden, P., C.; Mary Forbes Liston, P., C.; Jean Marion Farie Marshall, P., C.; Mary Lauchline M'Neill, B., C.; Maud Ada Richards, P., C.; Margaret Mitchell Ritchie, P., C.; Mary Ann Thompson Ritchings, Z., P.; Sara Maude Robertson, Z.; and Gert. Florence Fleetwood Taylor, B., Z.

The following have passed the Second Professional Examination (old regulations) for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.):—

James Andrew, Robert Adair Lockhart, George Murray, Hugh McIntyre, Charles David Picken, and Charles Edward Cortis Stanford, B.Sc. *Woman*: Martha Jane Gilmore Cox.

The following have passed the Second Professional Examination (new regulations) for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subject or subjects indicated after their respective names (A., anatomy; P., physiology; M., materia medica and therapeutics):—

John Aitken, A., P.; George Alexander, A., P.; Arthur James Ballantyne, A., P.; Andrew Aitken Barclay, A., P.; James Barrowman, A., P.; William Bennett, A., P.; James Symond Beveridge, A., P.; George MacLellan Blair, A., P.; John George Wilson Boleyn, M.; Theodore Belchambers Broadway, M.; John Brunton, A., P.; Wm. Cochran Burns, M.; Robert Carswell, M.A., A., P., Alex. Henderson Cassells, A.; Andrew Clark, A., P.; Robert Crawford, M.; John Crow, M.; John Lithgow Davie, A.; Robert Douglas, M.A., A., P.; Alexander Garrow, A., P.; James Garden Green, A.; David Sloan Harvey, A., P.; Harold Smith Heap, A., P.; John Henderson, A., P.; Thomas Hunter, M.A., B.Sc., M.; Ernest Frederick Lionel de Jersey, P., M.; Edward William Reese Jones, A., P.; William Wallace Keir, A., P.; Alexander Millar Lindsay, M.; Robert Lunan, M.; Alexander Matheson, A., P.; James Blakeley Miller, A., P.; James Alex. Mitchell, A., P.; Percival Ambler Mitchell, A., P.; Murdoch Macdonald, M.; Arch. Turner Macewan, A., P., M.; Dugald M'Kinlay, A., P.; Roderick Reid Macnicol, M.A., A., P.; James M'Whir, M.; Robert Niven, A., P.; Percival Leslie Pearce, A., P.; Joseph Wilkie Scott, A., P.; Robert Scott, M.; John Shaw, M.A., A., P.; David Ap Simon, A.; John Macfarlane Sloan, A., P.; Francis Stevenson, P.; Frederick Ernest Stokes, A., P.; James Strang, M.; Thomas Morton Strang, A., P.; James Douglas Carnon Swan, M.; Daniel Rees Thomas, P.; William James Alexander Walker, M.; Ernest Watt, M.; Edward Roberts Weir, M.; Jas. Patterson Wilson, A., P.; and John Wotherspoon, M. *Women*—Daisy Annabelle Bennett, P., M.; Agnes Forbes Blackadder, A., P., M.; Lucy Buckley, B.Sc., M.; Mary Longmore A., P.; Karen Margrethe Myhre, A., P.; Eva M'Call, A., P., M.; Minna Amelia Macfarlane, M.; Margaret Wallace Howie M'Neil, A., P.; Mabel Catharine Poulter, A., P., M.; Jean Effie Prowse, A.; Agnes Renton Robson, M.; Marion Jamieson Ross, A., P.; Catherine Love Smith, M.; and Sara Whiteford, P.

The following have passed the Third Professional Examination (old regulations) for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.):—

(*A*) *Including Pathology.*—James Francis Agnew, William Buchan Armstrong, John Tait Bowie, Charles Cairnie, M.A., James Banks Cumming, James Donald Holmes, Archibald Livingston, George Bain Murdoch, Neil M'Callum, John Allan Craigie Macewen, B.Sc., Joseph M'Gowan, Robert Shanks, and James Weir. *Women.*—Annie Kirkby Anderson, Norah Kemp, Roberta Henrietta Margueretta Stewart, and Merbai Ardesir Vakil, B.A.

(*B*) *Not including Pathology.*—Andrew Phillips Aitken, John Ritchie Burns, John Herbert Lawson, Robert Hugh Meikle, James Millar, and John Alexander Paton.

The following have passed the Third Professional Examination (new regulations) for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subject or subjects indicated after their respective names (P., pathology; M., medical jurisprudence and public health):—

Francis James Charteris, P., M.; George Clark, P., M.; George William Coats, P.; James Duncan Cochran, P., M.; Joseph Muir Corbett, P., M.; Walter Scobie Findlay, M.A., P., M.; Adrian Andrew Forrester, P., M.; Lawrence Whitaker Harrison, P., M.; William Mitchell Lindsay, P.; William Glen Liston P., M.; James M'Haffie, P., M.; David M'Kail, P., M.; Norman Emil Henry Scott, P., M.; Samuel Macfarlane Sloan, P., M.; David Steele Smith, P., M.; and Mathew Logan Taylor, P., M.

UNIVERSITY OF ST. ANDREWS.—The following registered medical practitioners having passed the fequired examinations had the degree of Doctor of Medicine conferred upon them on March 27th, 1896:—

Beatty, Thomas Carlyle, L.R.C.P. Edin., F.R.C.S. Edin., L.S.A. Lond., Clacton-on-Sea.
Blake, Thomas William, M.R.C.S. Eng., Bournemouth.
Edmiston, John Clark, L.F.P.S. Glasg., Glasgow.
Gramshaw, Farbrace Sidney, L.A.H. Dubl., L.R.C.S. Edin., L.K.Q.C.P.I., Stillington.
Harris, William, M.R.C.S. Eng., L.S.A. Lond., M.R.C.P. Edin., F.R.C.S. Edin., Hellesdon, Norwich.
Havman, Charles Augustine, L.R.C.P.I., L.R.C.S.I., L.M.I., Clifton, Bristol.
Lacey, Thomas Warner, L.S.A. Lond., M.R.C.S. Eng., L.R.C.P. Lond., Woolwich.
Powell, Henry William FitzGerald, L.F.P.S. Glasg., L.R.C.P. Edin., F.R.C.S. Edin., London.
Reid, Thomas Whitehead, F.R.C.P. Edin., Canterbury.
Thomson, James Stitt, F.R.C.P. Edin., F.R.C.S. Edin., Dalkeith.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentleman having passed the necessary examination has been admitted a Fellow of the College:—

Brooke, James Stuart, L.R.C.S.I., &c.

The following gentleman having passed the necessary examination has been admitted a Licentiate of the College:—

Jones, William Arthur, L.S.A. Lond.

MEDICAL MAGISTRATE.—The Lord Chancellor has added the name of Mr. J. Goodwin Shea, F.R.C.S. Irel., to the Commission of the Peace for the borough of Chesterfield.

THE SOUTHAMPTON INFECTIOUS HOSPITAL.—It is not at all events general for the inspectors of the Local Government Board to publicly express the conclusion at which they have arrived at the end of an inquiry, but the Corporation of Southampton had a strong case for and practically no opposition to their scheme for an infectious hospital to supplement the present accommodation in the Small-pox Ship and the West Quay Hospitals. They asked permission to borrow a sum, estimated at about £2000, to purchase a site of ten acres for the buildings, but the actual price has not been fixed, for several interests being affected in the title to the land the matter has to go to arbitration. The land is high and the soil gravelly and easy to be drained. The present land hospital consists of two old houses scarcely worth repair and an iron addition thereto, while the nurses are not separated from the patients. The ship, of course, is reserved for small-pox patients, and Mr. Harris once more recalled a severe lesson to Southampton some few years ago, when no less than 135 cases were traceable to one imported small-pox patient. The vessel is, in fact, a port sanatorium. The new buildings will, it is thought, take eighteen months to erect, and the inspector disposed of the only serious objection—the carriage of infectious cases through a populous district—by remarking that it had been shown that with proper precautions there was no danger from this practice to the public health; and at the close of the inquiry Dr. Bruce Low said it seemed that the necessity for the purchase of this particular site had been shown, and it would appear from the evidence that it would be an economical scheme. He should report accordingly.

MR. ROBERT HARTLEY, medical officer of health to the Pemberton Urban District Council, has been elected a member of the County Council of Lancashire.

NATIONAL ORTHOPÆDIC HOSPITAL. — At the National Orthopædic Hospital, Great Portland-street, there were last year 205 in-patients and 1188 out-patients.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—The Central London Ophthalmic Hospital was partially closed for several weeks last year on account of repairs to the building. The annual report shows that during the year there were 170 in-patients and 9521 out-patients. The receipts were £887, of which the small payments made by patients amounted to £456.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.—The annual report of the South Devon and East Cornwall Hospital at Plymouth shows that during the last year 1152 patients were admitted and 75 deaths occurred; there were also 2274 out-patients. The expenditure exceeded the income by £190 and there was at the bank an overdraft of £801. The Earl of Mount Edgcumbe presided at the annual meeting.

SEAMEN'S HOSPITAL SOCIETY. — The annual meeting of the Seamen's Hospital Society was held at the Mansion House, Sir Donald Currie, M.P., presiding. The report showed that mainly through the receipt of a legacy of £2150 the receipts had been sufficient to cover the expenditure. Last year there were 18 293 patients, one-half of the in-patients being foreigners. The chairman read a list of subscriptions amounting to £675, which he had received, and said that he himself would contribute £1000. A vote of thanks to the contributors was proposed by the United States Ambassador and carried unanimously.

BIRMINGHAM GENERAL DISPENSARY. — The annual report of the Birmingham General Dispensary showed that the total number of patients admitted last year by tickets at the various branches was 32 774. Dental cases and accidents continued to be treated without tickets being obtained, and of these cases there had been 5091, bringing up the total number of patients to 37 865. The total income during the year was £10,770 and the expenditure £10,355, leaving a balance of £415 to be carried forward. The grant of the Hospital Saturday Fund was £900 to the general fund and £250 to the relief fund. The average cost of the patients was 3*s.* 9*d.*

ROYAL FREE HOSPITAL.—The annual report of the Royal Free Hospital showed that the patients treated during 1895 were largely in excess of the numbers recorded in 1894. More than 150 students of the London School of Medicine for Women received instruction in the wards, and 25 of them had become qualified to practice. The total expenditure was £10,898 and the income £9124. At the conclusion of the business Mr. Justice Bruce unveiled a marble tablet erected in memory of the late Mr. George Moore, who for twenty years had been a zealous supporter of the hospital.

THE PORTSMOUTH WATER SUPPLY.—The proposal of the Portsmouth Corporation to purchase the undertaking of the local waterworks company has been met with a good deal of difficulty. At the negotiations which were resumed some few weeks ago the chief point of difference between the parties was with regard to the amount of compensation to be paid to the directors and officials of the company; but at a recent conference between the committee of the town council and the directors the latter put forward other and fresh conditions. The directors ask that £10,000 be paid to them and to the auditors as compensation for disturbance; that £4000 be added to the company's reserve to make up the value of the back dividends; and that a year's pay, £4666 in all, be given to each employé of the company. In reply the committee recommend that seven years' fees (£6468) be paid to the directors and auditors, and they are opposed to the back dividends' scheme. They propose to pay seven years' salary to the secretary as superannuation and to retain at their present salaries every other officer of the concern. Arbitration is suggested should the directors fail to accept. This, then, with the addition of the handing over of sufficient Corporation stock to assure to the shareholders interest equal to the full statutory dividends for the water stock, is briefly the price the Corporation offer for the undertaking. The cost is put at just under a million and fifty thousand pounds.

LIVERPOOL INFIRMARY FOR CHILDREN.—The annual report showed that last year there were 1165 in-patients and 14,159 out-patients. The expenditure exceeded the income by £307. The amount received from the Hospital Saturday and Sunday Funds was £636.

ROYAL ISLE OF WIGHT INFIRMARY AND COUNTY HOSPITAL. — At the Royal Isle of Wight Infirmary and County Hospital 428 in-patients were admitted, and twenty-nine deaths occurred during the fifteen months from Oct. 1st, 1894, to Dec. 31st, 1895; there were also in the same period 1922 out-patients. The total income was £3510, and the total expenditure £3291, leaving a balance of £219.

LIVERPOOL LADIES' CHARITY AND LYING-IN HOSPITAL.—The annual meeting of the Liverpool Ladies' Charity and Lying-in Hospital was held on March 18th at the Town-hall, under the presidency of the Lord Mayor (the Earl of Derby). The report showed that during last year 2119 patients were attended at their own homes by the district midwives of the charity, whilst 274 were admitted into the hospital and attended by the nurses acting under the matron. The district medical officers visited 119 of the outdoor cases, and 28 of the hospital cases required the attendance of the hospital medical officers. There had been twenty-five pupils, of whom fourteen were trained as midwives and eleven as monthly nurses. The total expenditure for the year was £2230 and the balance due to the treasurer has now increased to £825.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—The next examination for the Certificate in Nursing and Attending on the Insane will be held on Monday, May 4th. Particulars can be obtained from the Registrar, Dr. Spence, Burntwood Asylum, near Lichfield.—The spring meeting of the South-Western Division, as we have already announced, will be held at Bailbrook House, Bath, on April 14th, 1896, at 2.30 P.M. Communications: (As by resolution at last meeting) To Consider the Report of the Committee on Criminal Responsibility. Dr. P. W. MacDonald will introduce a discussion on the Nursing Staff in Asylums. Dr. R. S. Stewart will read notes on the Special Reports and Certificates required by Section 38 of the Lunacy Act, 1890, and Section 7 of the Act of 1891. There will be a dinner provided at the Grand Pump Room Hotel at 5 P.M., charge 5*s.* each, exclusive of wine.

LITERARY INTELLIGENCE.—Recent French and German works and new editions announced by Messrs. Williams and Norgate include a second edition of the "Traité des Methodes Techniques de l'Anatomie Microscopique," by Bolles-Lee and Henneguy; a sixth edition of Gegenbauer's "Lehrbuch der Anatomie des Menschen"; Bollinger's "Atlas und Grundriss der Pathologischen Anatomie" (Part 1, Circulationsapparat, Lymphdrüse, Milz- und Schilddrüse); Heitzmann's "Descriptive und Topographische Anatomie des Menschen" (Parts 1 and 2, Bones, Joints, and Ligaments); Lewin's "Beiträge zur Dermatologie und Syphilis"; Von Niessen's "Der Syphilis-bacillus"; third edition of Bresgen's "Krankheits- und Behandlungslehre der Nasen-, Mund- und Rachenhöhle"; "Abba's Manuale di Microscopia e Batteriologia applicate all' Igiene," "Oeller's Atlas der Ophthalmoscopie (Part I.)"; "Londe's Photographie Moderne"; and "Miethe's Lehrbuch der Praktischen Photographie." The same firm publish Murray's treatise on the Deep and Shallow-water Marine Fauna of the Kerguelen Region of the Great Southern Ocean and An Account of the Crustacea of Norway, by Professor G. O. Sars, of which Vol. I. on the Amphipoda appeared last year, and Vol. II. on the Isopoda is in preparation. Of special interest at the present time are Roentgen's "Photographiën einer neuen Art von Strahlen," and Wünschmann's "Die Rœntgenschen X Strahlen, gemeinverständlich dargestelt."—The Rebman Publishing Company (11 Adam-street, Strand, W.C.) have ready for immediate publication a new work, entitled "Water and Water-supplies," by Dr. J. C. Thresh.—Mr. Young J. Pentland has in preparation a Text-book of Physiology, to be edited by Professor Schäfer of University College, and containing contributions by Professors Halliburton, Gamgee, Burdon Sanderson, Gaskell, Langley, Sherrington, McKendrick, Haycraft, and others.

PRESENTATION.—Mr. J. F. Shanahan, L.R.C.P., L.R.C.S. Irel., has been presented by the Limerick Royal Irish Constabulary with a valuable dining-room clock and two bronze mantel figures. The clock bore the following inscription: "Presented to Dr. J. F. Shanahan by the Limerick Royal Irish Constabulary, on his marriage, as a mark of their esteem and in recognition of his ability and unremitting attention as their surgeon."

FOOTBALL CASUALTIES.—While playing a match on Saturday last for Bedminster against the Eastville Rovers, a young man sustained injuries to his head from which he died on the following day.—A player (a factory worker at Bessbrook, near Newry) died at Dungannon on the 29th ult. from injuries to his head received in a match on the previous Saturday.—While playing a game on the 28th ult. in the Anderton-road, Sparkhill, a young man aged twenty-seven fractured his leg and was taken to the General Hospital, Birmingham.

THE DIFFUSION OF SMALL-POX AT GLOUCESTER.—Affairs at Gloucester have entered upon a different and a more serious phase during recent days. Not only have the cases newly arising developed in larger numbers than at any former time in the course of the epidemic, but this has happened at a time when seasonal circumstances of one and another kind are in favour of a still further augmentation of attacks. True it is that the altered attitude of the guardians towards the enforcement of primary vaccination has made changes which may have an appreciable effect on the future of the disease in Gloucester if matters are properly handled. The chances of this being done are greatly increased by the fact that the Local Government Board have sent their assistant medical officer, Dr. Parsons, to the city for the purpose of showing how the newly-acquired life of the compulsory clauses of the Vaccination Acts may be spent to the best advantage in the interests of the unvaccinated portion of the community. This kindly action on the part of the Local Government Board shows still more the wisdom of the step taken by the guardians, as it would have been manifestly absurd of the Board to have intervened in any way whilst the vaccination authority was bent on remaining inactive. On the other hand it is pleasing to note the alacrity with which the Board have stepped into the breach the moment it was deemed possible that the experience of their experts would avail to help the disease-stricken city. Whilst Dr. Parsons is thus busy assisting the authority in their efforts to stamp out the epidemic, Dr. Coupland, on behalf of the Royal Commission on Vaccination, is, we are glad to learn, engaged in studying the facts as to vaccination in relation to small-pox, a matter which is worth a great amount of pains at the present moment when the Commission are apparently approaching the completion of their seven years' sittings.

Parliamentary Intelligence.

CURRENT NOTES.

The Meat-supply for the Army.

FROM time to time recently questions have been addressed to the representatives of the War Office with regard to the quality of the meat supplied to different branches of the Army and to the proportion of foreign-grown meat allowed in the contracts, and it is understood that the Secretary of State for War has decided to make the whole subject a matter of special inquiry.

Shops Early Closing Bill.

Sir John Lubbock's Bill for the earlier closing of shops has emerged from the Grand Committee on Trade in very much the same condition as when introduced. The advocates of the voluntary closing movement proposed many amendments, but were successful with only a few and these unimportant. One alteration made is to the effect that the application by two-thirds of the shopkeepers to the local authority shall mention the hour which they desire to see inserted in the order, and among the shops expressly excluded from the operation of the Act are those in which hot cooked provisions are sold.

HOUSE OF COMMONS.

FRIDAY, MARCH 27TH.

Butter Adulteration.

Mr. Walter Long, President of the Board of Agriculture, in reply to a question by Mr. Kearley, said that during February 170 samples of imported butter were taken, of which 15, or 8·8 per cent., were found to be adulterated.

The Outbreak of Small-pox at Gloucester.

Mr. Radcliffe Cooke asked the President of the Local Government Board whether he was aware that small-pox was increasing in Gloucester at the rate of sixty fresh cases a week, the mortality being especially great among children, and that in one school out of forty children attacked no less than twenty-six died; whether he could say how many deaths were of unvaccinated and how many of vaccinated persons; and what steps, if any, were being taken to check the ravages of the disease.—Mr. Chaplin replied that the number of cases of small-pox notified to the Local Government Board during the four weeks ended March 21st was 414, 155 being in respect of the last-mentioned week. No details as to particular schools or as to the proportion of deaths amongst vaccinated and unvaccinated persons were as yet available. He was informed by the town council that they had done all that they could in the way of hospital isolation and disinfection to check the spread of the disease, but he was advised that the only effective means of controlling the extension was the adoption of a general system of vaccination and revaccination. He was informed by the guardians that every facility was being afforded by them for vaccination and revaccination, that both operations were being carried out very largely, and that the guardians at their last meeting resolved to enforce the Vaccination Acts, which, he understood, had been in suspension for the last nine years.

Illness in Poor-law Schools.

Mr. Chaplin, in answer to a question by Mr. Drage, said that scarlet fever had been prevalent in the Forest Gate school since August, 1895. During the last five months of the year seventy cases occurred. It was of an extremely mild type and many of the cases were so slight that their nature was difficult to recognise. He was glad to be able to state that there had been no death from the disease. There were twenty-three cases of diphtheria in 1895 in the Poor-law schools of the metropolitan district. Dr. Downes, the Inspector of the Board, stated that so far as he could judge from the best available data diphtheria during 1895 was about three times more rife among metropolitan children of school age not resident in Poor-law schools than it was among the children resident in such schools. According to a return made in the present month there were 641 cases of ophthalmia under treatment or observation in metropolitan Poor-law schools. The number for the corresponding period of 1895 was 709. Dr. Downes informed him that the cases were chiefly those of catarrhal ophthalmia or of granular lids, and that he was not aware that there had been any outbreak of the more serious form of purulent ophthalmia during the year.

MONDAY, MARCH 30TH.

Venereal Disease in the Indian Army.

Lord George Hamilton, in reply to a question by Mr. Duncombe, said that the growth of venereal disease in the Indian army consequent upon the abolition of the previous protective measures against it had been a source of great concern to the Government of India, who reported that it prevails "to such an extent as to constitute a most serious cause of inefficiency in the army." The Government of India were considering what instructions or regulations it might be possible for them to issue to mitigate the scourge without infringing the restriction imposed upon them by the resolution passed by the House upon the subject.

Dissection of Rabbits by Girls.

Colonel Lockwood asked the Vice-president of the Committee of Council on Education whether he had become acquainted with the purport of statements lately published in Birmingham to the effect that a class of young girls at the Waverley-road Board Schools were made to dissect the bodies of rabbits; were these operations enjoined by the Government inspector; if so, were they sanctioned by the department as a necessary part of the education of girls; was the kind of teaching involved to be continued; and would he see that the use of diagrams as illustrations were substituted for such experiments.—Sir John Gorst said, in reply, that the dissection in question was performed by some sixteen girls, not in an elementary school, but in the advanced course of the Organised Science School. Physiology was a compulsory subject in this course and the regulations of the Science and Art Department required a practical acquaintance by the use of a microscope with the minute structure of the several tissues and organs. None of the girls were under fourteen and nearly all were over fifteen. The clerk of the Birmingham School Board had stated that the actual dissection was nothing more than any girl would necessarily perform in preparing a rabbit for stewing and had probably been done without remark in most cookery kitchens.

The Alleged Increase of Lunacy.

Mr. Hobhouse asked the Secretary of State for the Home Department if he had communicated further with the Lunacy Commissioners, and if he was now prepared to make a further statement as to the causes of the recent great increase of lunacy and the operation of the 4s. grant or to institute an inquiry into the subject.—Sir Matthew White Ridley replied: I have had no direct communication recently with the Lunacy Commissioners on the subject, but I have suggested to the Lord Chancellor, under whose jurisdiction they are, that in view of the interest that is being taken in the question, it might be desirable to follow the precedent set by the Irish Government and direct the Commissioners, or some of them, to make special inquiries as to the causes of the increase of lunacy and embody their conclusions in the next annual report or in a special paper to be laid on the table of the House.

Medical Examiners in Ireland.

Mr. William Johnston asked the Chief Secretary to the Lord-Lieutenant of Ireland, in view of the fact that the three Queen's Colleges in Ireland sent up for the medical examinations of the Royal University at least three times as many candidates as did the Catholic University School of Medicine, would he explain why one-half of the total number of Fellows and examiners appointed by the Royal University were apportioned to the Catholic University. And, whether there was any clause in the charter or statutes of the Royal University giving this representation to the Catholic University at the

expense of the Queen's Colleges of Belfast, Cork, and Galway.—Mr. Gerald Balfour said, in reply, that the charter and statutes of the Royal University of Ireland empower the senate to appoint or employ such examiners as may be necessary, and impose no restrictions as to the persons who may be so employed. He was informed by the secretaries to the University that it has been the usual practice, ever since its foundation, to appoint as far as possible one half of its ordinary examiners from amongst the professors of the endowed or Queen's Colleges, and the other half from the professors of unendowed colleges, this practice had been followed in the medical as well as in the arts faculty.

The Vaccination Question.

Mr. Channing asked the President of the Local Government Board whether inquiries had been made by the Royal Commission on Vaccination into outbreaks of small-pox at Warrington, Leicestershire, and other places; when the results of those inquiries would be made public; and what opportunities would be given to those who had taken local interest in the matter to represent any observations thereon to the Royal Commission before it presented its final report?—Mr. Chaplin replied that he had made inquiry and he was informed that it was the fact that inquiries had been made by the Commissioners into these outbreaks. When the results of the inquiries would be made public he was unable to say, but he was advised that the Commissioners could not undertake to delay the presentation of the final report until the publication of the results. The last question was one which ought to be addressed to the Commissioners, he having no authority to interfere.—In reply to a question by Colonel Russell on the same subject, Mr. Chaplin said that he had communicated with the Commission, and he had been informed that it was impossible to name a date when the Commission's report would be laid upon the table. The Commissioners had been for a long time engaged on its preparation, and they hoped it would not be long before it was presented. The Local Government Board had already sent Dr. Sidney Coupland to Gloucester to inquire into and report upon the epidemic there.

IN COMMITTEE.

Food Products Adulteration.

The Select Committee of the House of Commons on the Adulteration of Food Products held its final meeting for the examination of witnesses on Wednesday, March 25th.

Mr. Richard Bannister, Government Analyst at Somerset House, said that statements had been made by the representative of the Society of Public Analysts to the effect that the Somerset House authorities were incompetent for their work, and he desired to give evidence to prove that such was not the case. Long before the establishment of public analysts a large part of their duties had been performed, and performed with success, by the Inland Revenue Commissioners and their staff. They had bestowed very great attention upon tea and coffee, and upon spirituous drinks, vinegar, arrowroot, and articles of that kind, and the results of their work would be found in the records of the department and in blue-books. He maintained that the department had not been backward in scientific research and that its chemical and other scientific knowledge was well up to date. In five years there had been 953 prosecutions in connexion with excisеable articles. The cases dismissed were 14 in number, and the total amount of the fines imposed was £17,203, and he might add that no case was lost through faulty expert evidence. When the Food and Drugs Act came into operation in 1875 the department obtained a large number of carefully-selected samples of pure milk and butter and had them analysed in order to secure reliable data, and the results of the analyses were published in due course. He might say that no effort had been spared by the board or their chemical staff to carry out their duties in a manner entitling them to public confidence for zeal, thoroughness and impartiality. The most fruitful source of discussion with regard to the proper carrying out of the Food and Drugs Act was the limit or standard to be applied to milk, and he asserted that some analysts applied too high and rigid a standard and did not make sufficient allowance for natural variations in the milk. Mr. Bannister then discussed in detail a number of cases quoted by the representative of the Society of Public Analysts. Having done this, he said, in reply to the chairman, that it would certainly be most desirable that the authorities of Somerset House and the Society of Public Analysts who were engaged in the same class of work should, as far as possible, have uniform standards and limits. It was desirable that they should agree, but they could not agree. The present friction was considerable and greatly to be regretted, but he might say that with some of the public analysts in the country they had no difficulty whatsoever. He was not much in favour of fixed standards, but if they were to have a standard for milk it should be laid down in an Act of Parliament.

The Chairman (Mr. T. W. Russell) said that although the Committee had been sitting during three sessions of Parliament they were still being inundated with applications to be heard, and the Committee had decided to close their inquiry after hearing Mr. Beck, the solicitor of the Metropolitan Grocers' Association. They were of opinion that they would then have sufficient evidence with which to proceed to the consideration of their report.

Mr. Beck was then examined. He expressed the opinion that if properly administered and if amended in a few particulars the present Adulteration Acts were sufficient. In conducting prosecutions he found among magistrates a prejudice against traders undertaking prosecutions and among local authorities a distinct tendency to discourage information from private individuals. With regard to the sale of margarine as butter it appeared to him wise that there should be a minimum penalty from a second offence, and that with certain safeguards it should be possible in flagrant cases to impose imprisonment without the option of a fine.

The Committee have arranged to meet on April 14th to consider on what lines their report should proceed.

VACCINATION GRANT.—Mr. Horatio E. Walker, M.R.C.S. Eng., has again been awarded the full vaccination grant for the central district of the Corwen Union, North Wales.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALCORN, R. G., L.R.C.P. Edin., L.R.C.S. Irel., has been appointed Government Medical Officer and Vaccinator for Maitland, New South Wales.

ALLEN, W. T. D., M.B., B.S. Irel., has been appointed Assistant Medical Officer for the Parish of Liverpool Workhouse.

ANDERSON, R. S., M.D., C.M. Edin., has been appointed Medical Officer by the Spennymoor Urban District Council.

BAIN, J. G., M.B., C.M. Glasg., has been appointed Medical Officer for the No. 2 District of the Wellington (Somerset) Union, vice A. Lyndon, resigned.

BARKER, W. H., M.R.C.S. Eng., L.R.C.P. Edin., has been appointed Acting Medical Superintendent of the Ararat Lunatic Asylum, Australia.

BLAXLAND, H., L.R.C.P. Lond., M.R.C.S., has been appointed pro. tem. Deputy-Inspector-General of the Insane, New South Wales.

BROWNE, V. E., M.B. Dub., L.R.C.S. Irel., has been appointed Health Officer for Rosedale Shire, Dennison and Rosedale Ridings, Victoria Australia.

CLAPHAM, G. P. P., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Assistant Medical Officer for the Workhouse of the Parish of Liverpool.

CROSS, G. F., M.B., B.S., has been appointed Medical Officer of Health to the Downham Rural District Council, vice F. W. Kirkham, resigned.

CROWTHER, E. L., M.D. Aberd., L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Honorary Medical Officer to the General Hospital, Hobart, Tasmania, vice E. O. Gibbin.

DENSHAM, ASHLEY, M.R.C.S., L.R.C.P., L.D.S., has been appointed Assistant Dental Surgeon to the Dental Hospital of London, Leicester-square.

DUNN, E. D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Public Vaccinator for the district of Nelson, New Zealand.

FENTEM, THOS., M.B., C.M. Edin., B.Sc. (Public Health), has been reappointed Medical Officer for the North Division of the Bakewell Rural District.

FOREMAN, JOSEPH, L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Government Director of Sydney Hospital, New South Wales.

GORMLEY, J. W., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Health Officer for North Ovens Shire, Victoria, Australia.

GOUGH, H. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Northwich Urban Sanitary District, vice J. M. Fox.

GRAHAM, JAMES, M.D. Edin., has been appointed a Director of the Prince Alfred Hospital, Sydney, New South Wales.

HARVISON, W. S., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Government Medical Officer and Vaccinator for Cooma, New South Wales.

HUGHISTON, R. W., M.B., Ch.B. Melb., has been appointed Health Officer for Fern Tree Gully Shire, Victoria, Australia.

KNOX, JOHN, M.D. Aberd., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the South Division of the Bakewell Rural District.

LOVEGROVE, THOS. H., M.R.C.S. Eng., has been appointed Coroner for Perth, Freemantle, and Swan districts, Western Australia.

MORRIS, H. G., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer to the Hockley Provident Dispensary, Birmingham (Sands Cox Trust).

NATTLE, W. R., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer at Mafeteng, Basutoland, South Africa.

NORRIS, W. P., M.B., Ch.B. Melb., has been appointed Health Officer for Romsey Shire, Victoria, Australia.

PERN, E. C., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Workhouse and the Droxford and Soberton Sanitary District of the Droxford Union, vice A. H. Goodwyn, resigned.

PLAYER, C. R., M.B., Ch.B. Melb., has been appointed Acting Medical Superintendent to the Sunbury Lunatic Asylum, Victoria, Australia.

RANDOLPH, C., M.R.C.S., L.R.C.P., L.M. Edin., has been appointed Medical Officer for the No. 5 District of the Wellington (Somerset) Union, vice H. W. Randolph, resigned.

ROTH, B., J.P., F.R.C.S. Eng., has been appointed Surgeon to the Orthopædic Department of the Royal Alexandra Hospital for Sick Children, Brighton.

SALTER, C. E., M.D. Lond., B.S., L.R.C.P., F.R.C.S., has been appointed Honorary Surgeon to the Scarborough Hospital.

SANTI, PHILIP R. W. DE, F.R.C.S., has been appointed Assistant Surgeon (vice C. Stonham) and Aural Surgeon to the Westminster Hospital.

SMITH, W. T., M.R.C.S., has been reappointed Medical Officer of Health by the Lepton District Council.

THOMAS, J. T., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Camborne Urban Sanitary District, vice R. Erskine, resigned.

THOMSON, J. A. M., L.R.C.P. Irel., L.M., L.R.C.S. Irel., has been reappointed Medical Officer of Health for Bradford-on-Avon.

THORP, S., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Hexham Union, vice A. H. Hoffman, resigned.

WHITLING, H. T. M., M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Market Harborough Union, vice H. H. Lovell, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BATH URBAN SANITARY AUTHORITY.—Medical Officer of Health. Salary £200 a year.

BELGRAVE HOSPITAL FOR CHILDREN, 77, Gloucester-street, London, S.W.—Dispenser. Salary £50 per annum. Also Clinical Assistant.

CITY OF BIRMINGHAM.—Deputy Medical Superintendent for the City Hospital, Little Bromwich, unmarried. Salary £175 per annum, with residence, rations, and attendance. Applications to the Clerk to the Health Committee, Council House, Birmingham.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist. Salary 100 guineas per annum.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester-square, W.C.—Lecturer on Mechanical Dentistry.

DR. STEVENS' HOSPITAL, Dublin.—House Surgeon for two years. Salary £100 per annum, with apartments, fire, and light.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Gamis-road, Shadwell, E.—Resident Medical Officer. Salary £80 per annum, with board and residence.

HEREFORD COUNTY AND CITY ASYLUM.—Medical Superintendent. Salary £400 per annum, with furnished house, coals, gas, vegetables, and washing. Applications to Chairman, Asylum Committee, Shirehall, Hereford.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House Physicians. Also Clinical Assistants to the Out-patient Department and Clinical Clerks to the In-patient Physicians.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury.—Surgical Registrar, for one year, an honorarium of £40 being voted at the expiration of that term.

KESTEVEN AND GRANTHAM DISTRICT ASYLUM.—Resident Medical Superintendent. Salary £300 a year, with rations, coals, light, and washing. Applications to the Clerk to the Visitors, Stamford.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House Surgeon. Salary, £70 per annum, with residence and maintenance in the hospital.

MANCHESTER ROYAL EYE HOSPITAL.—House Surgeon. Salary £70 per annum, with residence, board, and washing.

MIDDLESEX HOSPITAL, W.—Honorary Senior Surgeon.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer for six months. Salary £30 per annum, with board, attendance and washing.

OWENS COLLEGE, Manchester.—Junior Demonstrator in Physiology.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, W.—House Physician and House Surgeon for six months. Salary at the rate of £50 per annum, board and residence.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments, board, and washing.

RUPTURE SOCIETY.—Surgeon. Applications to Mr. C. Taylor, 27, Great James-street, Bedford-row, London, W.C.

SOCIETY OF APOTHECARIES.—Examiners. Applications to the Clerk to the Society, Apothecaries' Hall, Blackfriars.

SURREY DISPENSARY.—Obstetric Physician and a Surgeon. Honorarium in each case 50 guineas per annum. Applications to the Secretary, 55, Borough High-street, Southwark.

Births, Marriages, and Deaths.

BIRTHS.

BLAIKIE.—On March 29th, at Minto-street, Edinburgh, the wife of R. H. Blaikie, M.D., F.R.C.S. Edin., of a daughter.

HOLMES.—On March 29th, at Ferndale, Woburn Sands, Beds, the wife of T. D. Holmes, M.D. Edin., of a daughter.

SMITH.—On March 23th, at Brook-street, Grosvenor-square, the wife of Dr. Pye Smith, of a son.

STOCKEN.—On March 28th, at Connaught-road, Harlesden, the wife of Arthur P. Stocken, L.D.S., of a son, stillborn.

MARRIAGES.

BENSON—SIMMONDS.—On March 26th, at St. Paul's, Herne-hill, Henry Mitchell Benson, M.B., C.M. Edin., eldest son of John Benson, Broomhill, Sheffield, to Stella Theodora, third daughter of the late Henry Simmonds, Aylesford House, Herne-hill.

SHUTER—TIPPETT.—On March 25th, at the Parish Church, Chiswick, George Percy Shuter, M.A., M.B., B.C. Cantab., D.P.H., of Oaklands, Chiswick-lane, W., to Ellen Frances Tippett, of Cleveland House, Chiswick, second daughter of G. F. Tippett, of Bromley.

STEPHEN—HETT.—On March 26th, at St. Stephen's, Westminster, by the Rev. J. Rogers, Vicar of Gatton, Surrey, assisted by the Rev. H. Twining, Vicar of St. Stephen's, John Stephen Stephen, M.B., C.M., Edinburgh, and of Gallowerook, Elgin, to Emmie Cundell, second daughter of J. Hett, Esq., Headlam Hall, Darlington.

DEATHS.

COPELAND.—On March 25th, at Staindrop, William Copeland, M.R.C.S., aged 80.

MONCKTON.—On March 26th, at Maidstone, David Henry Monckton, M.D. Lond., aged 67.

TUCKER.—On March 29th, at Glaslyn, St. Leonards-on-Sea, John Dunning Tucker, aged 67.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 1st, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp Shade	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Mar. 26	29·69	N.W.	48	47	88	52	47	0·01	Cloudy
" 27	29·93	N.W.	45	41	92	53	41	0·08	Cloudy
" 28	29·59	S.W.	44	42	78	46	38	....	Raining
" 29	29·75	N.	41	39	58	44	39	0·28	Raining
" 30	30·01	N.	40	38	81	51	35	0·05	Overcast
" 31	30·19	N.E.	41	39	88	51	38	....	Cloudy
April 1	30·04	W.	48	46	64	52	41	0·02	Overcast

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s.*

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*; by post, 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

CHARGES OF EXTRAVAGANCE AGAINST THE ASYLUMS BOARD.

THE Islington vestry, which is represented by Mr. Elliott in the Metropolitan Asylums Board, has very properly declined, notwithstanding strong and almost plaintive pressure from Mr. Elliott and his friends, to express any opinion on his position in regard to the charges which he has seen fit to bring against the Board in connexion with the payment of large sums for sites for hospitals. The public admires any man who has the courage to push such charges to a demonstration. But to make them and then to flinch from carrying them through is a very different matter. The whole system of the Board, its efficiency, its wholesale admission of patients of all sorts and conditions with "no restriction or regulation" such as was contemplated in the Acts by the Local Government Board, constitute a big question for very serious inquiry of which we see little chance at the present time. The Board has given every opportunity of inquiry to Mr. Elliott.

"THE POISON OF THE PRIMULA."

To the Editors of THE LANCET.

SIRS,—In answer to your inquiry on the above subject in THE LANCET of March 28th I beg to say that about two months ago a young man, a gardener, consulted me about a very severe attack of inflammatory eczema, confined to the right forearm and back of the right hand. He said he had been handling primula obconica and that he had had a similar, though less severe, attack of the same kind in the previous autumn from the same cause. I have made several inquiries amongst those interested in gardening in this district, and it seems to be a well-recognised fact that primula obconica at any rate produces in many cases artificial eczema of varying degrees of severity. I have not obtained evidence against any other variety of primula in this respect, but as the whole order of primulaceæ are more or less noted for their acridity it is very likely that other members of the order produce skin eruptions. Primula obconica is in flower all the year round, and it would be interesting to know if the poison be virulent throughout the year or only at particular seasons. The poison is distilled from the hairs which may be seen thickly covering the leaves and other parts of the plant. Gardeners, amateur and professional, should know of this possible source of discomfort and should always have their hands and arms covered when handling plants of the order primulaceæ. The eczema in my case quickly subsided by local application of the following lotion: Acidi carbolici, acidi boracici, āā 3 ss.; calaminæ præparatæ, 3 iv.; magnesiæ ustæ, 3 ii.; glycerini pur., 3 ij.; aquæ destillatæ ad ℥ viii.

I am, Sirs, yours faithfully,

LOUIS E. STEVENSON, M.B. Camb., &c.

Temple Sowerby, Westmorland, March 30th, 1896.

To the Editors of THE LANCET.

SIRS,—About five years ago I had under my care a lady who suffered from recurring attacks of an erysipelas-like character. She had suffered more or less for twelve months. As a rule the attacks came on suddenly, her whole face would swell, including the eyelids, so that she could no longer see, and large blisters formed over the cheeks and chin. The dorsal aspect of the hands and forearms were also affected, but in a much slighter form. She had never had erysipelas or anything resembling it previously to the beginning of this attack, and no known cause had been discovered. She was usually confined to bed for a few days and then quite recovered, but whenever she came downstairs a few minutes—sometimes ten—were sufficient to close her eyes, &c., so that she had to retire at once. I at last discovered that when she came downstairs the first thing she usually did was to take away the decayed foliage, flowers, &c., from a very fine specimen of primula obconica. I removed the primula and the patient since then has never suffered from primula erysipelas. I have seen one or two cases since in gardeners, but confined to their hands and forearms, but have never seen such a severe case as described above.

I am, Sirs, yours truly,

THOS. A. F. HOOD.

Ivy Bank, Blairgowrie, N.B., March 28th, 1896.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 23th you say you would like to hear of anyone having had under his care a patient suffering from the handling of primulas. I met with such a case in June last. A middle-aged lady consulted me with reference to a rash affecting the dorsal aspect of the hands and fingers. It was not erysipelatous in character, but more like a dry eczema and attended with a good deal of pruritus. She had been under the care of a dermatologist in London, but soon after she returned home the condition recurred. As I noticed that the rash stopped abruptly, where the wrist became covered by the dress, and also failing to find any diathetic cause for the condition, the treatment of which was not very satisfactory, it occurred to me, as I had heard of the effects of the primula in this way, to ask her if she was in the habit of handling these plants. She at once said she had several pots containing plants of primula obconica with which her hands were often in contact. I advised her to leave off all medication and to keep her favourites at a respectful distance. She did so, and in about ten days returned to say that my surmise was evidently correct, as she was quite free from her complaint.

I am, Sirs, yours faithfully,

Hull, March 30th, 1896. GEO. F. ELLIOTT.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 28th you refer to cutaneous irritation from primulas, and inquire if other instances are known. I may say that I have seen two well-marked cases of irritation of the fingers and dorsum of both hands from this cause. The first case which I saw some three years ago was that of a gardener who had been potting or repotting primula obconica for two or three days previously. The dorsum and fingers of both hands were the seat of a red raised rash and the skin of the fingers in some places had become abraded and the surface wept slightly. The other case was in a gentleman who had been potting primulas. The rash was similar to that seen in the first case, but was not so marked, and the right hand was more affected than the left. The irritation in both cases was great, but soon yielded to oleate of zinc ointment and the wearing of gloves when handling the plants.

I remain, Sirs, yours truly,

Halifax, March 28th, 1896. PRIESTLEY LEECH.

THE AERIAL CONVECTION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—In times gone by cholera was always believed to be a visitation of Providence; a cholera cloud was constantly talked about and the germ-laden air was supposed to affect one spot and pass over another. But we now laugh at these notions as out of date; at the same time, this apparently does not prevent us from falling back upon this identical method of explaining the spread of other infectious diseases. When we cannot find out some clear cause for some particular outbreak of zymotic disease we say it is due to the atmosphere; the same as when we are unable to explain some peculiar chemical action we say it is due to catalysis. But why, after all, should we discard certain reasonable methods of explanation and fall back upon mere suppositions? For instance, why should we put forward the idea as regards small-pox, that the occurrence of cases around small-pox hospitals is due to aerial convection, when we know that nurses and attendants are constantly going into the surrounding districts and in all probability carry some infection with them? Because the germs of malaria are wafted about by the air that is no reason of itself why animal poisons should be distributed in the same way. The soil I would say destroys the animal germs, but keeps alive those peculiar to marshy districts. If it be asserted that both vegetable and animal poisons get disseminated in the same way, then a belt of trees round infectious hospitals should be equally as efficacious as they are round low-lying marshy areas. But will anyone be got to say that they will be? My own belief is that the air is destructive to animal but not to vegetable poisons.

I am, Sirs, yours faithfully,

Surbiton, March, 1896. F. P. ATKINSON.

P.S.—From Dr. Manson's lectures on malaria it would appear that even the idea of the aerial convection of the malaria germ may soon be swept away.

H. F. (Southernhay).—It seems to us, from our correspondent's account, that X. ought to decline to attend the patient. An interview between A. and X. would ensure amicable relations, whatever their mutual decision.

Mr. E. Curtin.—The circular is discreditable, but we cannot find by the current Register or Directory that it is issued by a qualified medical practitioner.

Devon.—(1) Our correspondent's first duty is towards his patient. (2) Certainly not.

THE STRENGTH OF THE HUMAN JAW.

THAT the muscular strength of the jaw in man, notwithstanding the remoteness of his reputed descent from simian ancestors possessed of gigantic maxillæ, has by no means dwindled into insignificancy is a matter of common knowledge. Readers of "Alice's Adventures in Wonderland" will remember how Father William explained his prowess as a trencherman to his son:—

> "'In my youth,' said his father, 'I took to the law,
> And argued each case with my wife;
> And the muscular strength which it gave to my jaw
> Has lasted the rest of my life.'"

But it appears that an American dentist claims the honour of being the first to endeavour to determine the exact amount of such muscular strength by means of a special dynamometer of his own invention, with which he has carried out a series of experiments on no fewer than 500 persons of both sexes and various ages. It has been argued, with some show of reason, that owing chiefly to the introduction of knives and forks and the consequent partial disuse of the teeth as agents for disruption the jaw-bones of civilised peoples are gradually undergoing attenuation, the shrinking process being further aided by the abbreviation of mastication which has attended on the aspirations towards tenderness of modern cooks; but we are not aware that any serious attempt has ever been made by ethnologists to investigate the truth or falseness of this theory. The subject is nevertheless one to which considerable interest attaches, and the American record, if authentic, should prove valuable to future investigators. It seems that the owners of the 500 jaws were able to exercise therewith on an average a pressure equivalent to about 100 lbs.; but the maximum and minimum, owing to age and other causes, were widely divergent. A little girl aged seven, for instance, could raise the index of the dynamometer to the 30 lb. mark with her incisors alone and to that for 65 lb. with her molars; while a gentleman with an extraordinarily powerful jaw (who happened, curiously enough, to belong to the medical and not to the legal profession) succeeded without apparent effort in exhausting the resources of the indicator with a pressure equal to 270 lb. The sole account of these experiments, which has reached us through a Continental channel, is rather meagre and inconclusive, but doubtless a complete report has been, or will be, published.

"THE BALL-NOZZLE SYRINGE AND ENEMA."

To the Editors of THE LANCET.

SIRS,—With reference to your remarks on the ball-nozzle syringe in THE LANCET of March 21st, we write to say that the improvement suggested by you is being carried out, so that no part has the smallest bit of metal about it, the whole being made entirely of ebonite.

We are, Sirs, yours faithfully,

THE BRITISH-AMERICAN BALL NOZZLE CO.

Oxford-street, W., March 26th, 1896.

E. A. H.—Under these circumstances we know that half a fee has been taken. Whether this is fair or not must differ in different cases. For an opinion on the legal aspect of the case we must refer our correspondent to a solicitor.

L.R.C.S.—Certainly not. The certificate can only be signed by a registered medical practitioner.

"AMBULANCE LECTURES AND MEDICAL ADVERTISEMENT."

OUR paragraph upon this subject has brought us several illustrations of the thing we complained of. We cannot express an opinion on individual instances, preferring to leave it to the taste of ambulance lecturers to decide how far publicity is given to their name, and when it takes an unprofessional form.

M.O.H.—The Infectious Disease (Notification) Act, 1889, is quite clear on the point. Section 3 (*b*) says, "*every* medical practitioner attending or called in to visit the patient" shall forthwith notify. If it were not so, a patient might immediately after the first notification remove, or be removed, into an adjoining district, where he would avoid his infectious sickness being placed under any control. If the district council still refuse the fee, the actual circumstances of the case, with the dates of the two notifications, should be submitted to the Local Government Board and their view be asked. But we have dealt fully with this question and have quoted the decision of the Local Government Board as to it in the last of our series of four articles entitled "Difficulties under the Infectious Disease (Notification) Act, which appeared in THE LANCET of Jan. 19th, 26th, Feb. 9th and 16th, 1895.

Perplexed.—The circumstance mentioned must be regarded as favourable to our correspondent's chances, but scarcely to constitute a claim. Assuming that there is nothing in his relation to the retiring medical officer forbidding his candidature his success should be very probable.

ADVERTISING DENTISTS IN KENSINGTON.

"Dr." Cadwaladr Jones seems to have a warm, if rather injudicious, friend in the editor of *Society*, which on more than one occasion has contrived little paragraphs designed to send patients to him. The following is a specimen which—who could resist?

> "Cloe.—You will find 'Dr.' Cadwaladr Jones an excellent dentist, and very kind and gentle. He knows all about crowns and bridge-work, and if he considers it desirable he uses it at reasonable charges. You will find him at 2, Queen's-road, a pretty little house overlooking Kensington-gardens."

Our only difficulty in acquitting Mr. Jones of any responsibility for such paragraphs is their appearance more than once, for presumably a word from him would stop the puff. He must know that the Irish College of Surgeons, whose dental licence he has, would not hold any of its licentiates blameless who sanctioned such paragraphs even by silence.

M.R.C.S. (ambulance) has omitted to enclose his card.

THE CONSULTING-ROOM IN AMERICA.

THE *Maryland Medical Journal* says that Philadelphia is soon to have a large office building which will be known as "The Clinic," and will be occupied exclusively by consulting-rooms for medical men. Cincinnati and New Orleans have such buildings in successful operation, and at New York a similar project is in contemplation.

MADURA FOOT DISEASE IN AMERICA.

IN the *Montreal Medical Journal* for January Adami and Kirkpatrick describe the first indubitable case of mycetoma recorded as occurring in a patient who had never travelled outside the continent of America. The affected limb was after amputation exhibited before the Medico-Chirurgical Society of Montreal.

KITSON *v.* PLAYFAIR AND WIFE.

WE have received a large number of letters on this case from medical men in different parts of the United Kingdom. It is obvious that pending the appeal the case cannot be commented on.

ERRATUM.—Mr. Lennox Browne informs us that he was preceded in his views upon lingual varix by G. Lewin of Berlin, who described it with pictorial illustrations, and attributed to it some importance as far back as 1863.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (2 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (8th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (9th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's, Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (11th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY (8th).—HUNTERIAN SOCIETY (London Institution).—8.30 P.M. Dr. P. Warner: Notes on a Case of Typhlitis; Mr. Symonds (late President) who operated on the case will also contribute his notes.

THURSDAY (9th).—BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Adjourned Discussion on Ventro-fixation, Ventre-suspension, and Allied Operations, with their results. Mr. Bowreman Jessett: The Importance of Early Diagnosis of Cancer of the Uterus (illustrated by numerous specimens and the results of treatment).

FRIDAY (10th).—WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich-road, S.E.).—8.15 P.M. Mr. H. Marsh: Recent Progress in the Pathology and Treatment of Diseases of the Joints (illustrated by specimens).

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. R. J. Godlee: Two Cases of Acute Abscess of the Liver.—Dr. S. West: On Albuminous or Serous Expectorations.—Dr. G. N. Pitt and Mr. Arbuthnot Lane: Cranial Cyst of Sarcomatous Origin; no recurrence two years after Operation.—Mr. H. W. Page: Sequel to a Case of Syphilitic Cranial Necrosis recorded in vol. xxviii. of the Transactions; Gumma of Frontal Lobe; Death.—Mr. L. Hudson: A Case of Malingering in a Boy of Eleven.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, W.).—8.30 P.M. Papers:—Mr. J. B. Jessett: A Case of Fæcal Fistula cured by Resection of Small Intestine by Maunsell's Method.—Dr. Thudichum: The Chemistry of the Carbohydrates, with special reference to Diabetes. Pathological specimen by Mr. A. Doran.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

FRIDAY (10th).—CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL.—4 P.M. Dr. Dundas Grant: Some recently introduced methods for the Diagnosis of Diseases of the Ear.

During the week marked copies of the following newspapers have been received:—*Dudley Herald, Sheffield Telegraph, Newcastle Leader, Hull Daily Mail, Times of India, Norfolk Daily Standard, Rangoon Gazette, Manchester Guardian, Doncaster Chronicle, Pioneer Mail, South Wales Daily News, Montreal Star, Hongkong Weekly Press, Leicester Daily Mercury, Hastings Independent, Newbury Weekly News, Sussex Daily News, Bradford Observer, Wolverhampton Chronicle, Walsall Advertiser, Birmingham Post, Kingston News, Architect, Darwen News, Portsmouth Times, Scotsman, North British Advertiser, Coventry Daily Telegraph, Builder, St. Pancras Guardian, Dundee Advertiser, East Dorset Herald, Liverpool Courier, Westminster Gazette, The Morning, Cork Weekly News, Invention, Electrical Review, Brighton Gazette, Morning Advertiser, The Times, Hertfordshire Mercury, Bedfordshire Times, Local Government Chronicle, Mining Journal, Reading Mercury, City Press, Weekly Free Press and Aberdeen Herald, West Middlesex Standard, Gloucestershire Chronicle, Guy's Hospital Gazette, Surrey Advertiser, Cheltenham Chronicle, Australian Medical Gazette, The Gazette (Montreal), Cornish Telegraph, Chatham News, Public Opinion, Local Government Journal, &c., &c.*

Communications, Letters, &c., have been received from—

A.—Dr. F. P. Atkinson, Surbiton; Mr. J. E. Arnold, Crouch Hill; Mr. J. Allen, Derby; A. W., Huddersfield; A. B., Lond.

B.—Dr. F. Beach, Kingston; Dr. Lauder Brunton, Lond.; Dr. A. M. Buchanan, Glasg; Dr. J. B. Brierley, Manchester; Sir Walter Besant, Lond.; Mr. R. F. Bate, Inverness; Mr. R. Barrow, Ryde; Mr. Lennox Browne, Lond.; Mr. S. W. Beck, Tiverton; Mr. T. B. Browne, Lond.; Mr. C. Birchall, Liverpool; Mrs. Beddard, Richmond; Messrs. Burroughs, Wellcome and Co., Lond.; Messrs. J. Baker and Son, Lond.; Messrs. O. Berend and Co., Lond; Messrs. Burgoyne, Burbidges, and Co., Lond; British-American Ball Nozzle Co., Lond., Manager of; British Institute of Preventive Medicine, Sudbury, Sec. of.

C.—Dr. H. G. Cook, Cardiff; Dr. Harry Campbell, Lond.; Mr. J. Carter, Lond.; Mr. C. Clark, Lond.; Mr. H. Cripps, Lond.; Mr. R. Campbell-Davys, Llanwrtyd; Mr. H. C. Couzens, Lond.; Mr. S. D. Clements, Edin.; Messrs. T. Christy and Co., Lond.; Messrs. Cassell and Co., Lond.; County Asylum, Dorchester, Sec. of; Church Society for the Prevention of Cruelty to Animals, Weston, Hon. Sec. of; Condal Water Co., Lond.; Cortland Wagon Co., Lond.; County Assistant, Devizes.

D.—Dr. W. Donovan, Birmingham; Dr. H. E. Durham, Lond.; Dr. C. Dukes, Rugby; Dr. A. C. Dutt, Whitby; Mr. A. Doran, Lond.; Devon, Belford.

E.—Mr. G. W. Eccles, Lond.; Messrs. Elliott, Son and Boyton, Lond.;

F.—Surg.-Capt. Joseph Fayrer, Lond.; Mr. J. R. Fuller, Stourbridge; Mr. G. Foy, Dublin; Mr. H. W. Freeman, Bath; Mr. H. Faulkner, Exeter.

G.—Dr. A. Gamgee, St. Leonards-on-Sea; Dr. J. Grant, Preston; Dr. O. M. Gerrard, Tamworth; Mr. A. Gooding, Lond.; Mr. T. M. Girdlestone, Ascot; Mr. C. E. P. Groth, Lond.; Gloy Manufg. Co., Lond.

H.—Dr. S. Hyde, Buxton; Mr. C. H. Hulsh, Croydon; Mr. G. Holland, Barnton; Mr. J. Heywood, Manchester; Mr. T. P. Hugill, Lond.; Mr. J. Hunter, Bolsover; Messrs. Haasenstein and Vogler, Geneva; Hunterian Society, Lond., Hon. Sec. of; Hull Corporation, Clerk of; H.M., Reading.

I.—Dr. R. N. Ingle, Bedford.

J.—Dr. D. Johnston, Fordoun, N.B.; Mr. G. L. Johnson, Lond.

K.—Dr. T. N. Kelynack, Manchester; Dr. H. R. Kenwood, Lond.; Rev. Samuel Kinns, Lond.; Mr. C. S. Kirton, Leigh; Messrs. Keene and Co., Bath.

L.—Dr. R. F. C. Leith, Edin.; Dr. J. F. Little, Lond.; Mr. C. Legg, Lond.; Liverpool Northern Hosp., Sec. of; Liquor Carnis Co., Aston Clinton.

M.—Dr. J. McNamara, Lond.; Dr. G. G. Morrice, Salisbury; Dr. A. Macphail, Barnsley; Dr. R. T. Milner, Salford; Mr. H. B. Mills, Philadelphia; Mr. J. T. McLoughlin, Folkestone; Mr. C. Mansell Moullin, Lond.; Mr. M. Morris, Lond.; Mr. R. Mosse, Lond.; Mr. R. Manning, Dublin; Messrs. Macmillan and Co., Lond.; Messrs. Milton and Co., Lond.; Manchester Roy. Infirmary, Sec. of; Maltine Mfg. Co.; Lond.; M. O. H., Bovey Tracey.

N.—Mr. G. M. Netting, Plymouth; Messrs. Newton and Co., Lond.; Messrs. Newbery and Sons, Lond.; National Telephone Co., Lond.; Nurse, Nottingham.

O.—Dr. J. O'Conor, Buenos Ayres.

P.—Dr. A. G. Phear, Oxford; Mr. F. Tennant Pain, Lond.; Mr. D'Arcy Power, Lond.; Mr. Y. J. Pentland, Edin; Messrs. Parke, Davis and Co., Lond.

R.—Dr. C. H. Ralfe, Lond.; Dr. R. R. Rentoul, Liverpool; Drs. Renton and Smith, Chester le-Street; Mr. R. Redpath, Newcastle-on-Tyne; Mr. R. Ruttle, Accrington; Mr. J. M. Richards, Lond.; Royal College of Surgeons, Dublin, Registrar of.

S.—Dr. J. R. Semple, Lond.; Dr. T. C. Shaw, Banstead; Dr. C. S. Sherrington, Liverpool; Dr. J. A. Shaw-Mackenzie, Lond; Dr J. F. Silk, Lond; Dr. L. E. Stevenson, Penrith; Dr. G. A. Syme, Melbourne; Mr. D. P. Steven, Lond.; Mr. H. Stott, Lond.; Mr. C. H. Sers, Lond.; Messrs. G. Street and Co., Lond.; Messrs. Stubbs, Lond.; Messrs. Stevens and Co., Norwich; St. George's Hosp. Directory, Lond., Editors of; St. Luke's Hosp., Lond., Sec. of; St. Andrew's Hosp., Northampton, Sec. of; Scottish Preserve Co., Greenock; Stantor, Crook.

T.—Messrs. E. Taylor and Co., Liverpool.

U.—University College, Dundee, Sec. of.

V.—Mr. J. W. Vickers, Lond.; Mr. C. Vincent, Ryde.

W.—Dr. T. T. Whipham, Lond.; Mr. J. Wilmsburst, Harper Town; Mr. H. E. Walker, Corwen; Mr. J. L. Williams, Lond.; Miss Warren, Chatham; Messrs. J. and J. Windsor, Manchester; Messrs. C. Wright and Son, Wirksworth; Messrs. J. Wright and Co., Lond.; West Middlesex Institution for Trained Nurses, Acton, Sec of; Western Chemists' Assn., Lond., Hon. Sec. of.

Y.—Yachtsman, Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Dr. W. D. Anderson, Ballachulish; Dr. A. Anderson, Lodge Moor; Dr. E. Allen, Hawes; Mr. A. Avent, Broughton, Lechdale; Mr. R. R. Anderson, Fern Hill; Mr. E. Appleton, Thornaby-on-Tees; Messrs. Agar Bros., Manchester; Messrs Armstong, Paton and Co., Harpurhay.

B.—Dr. Baxter, Wincanton; Mr. A. J. Beesley, Wetheral; Mr. A. Butt, Yarbridge; Mr. F. B. J. Baldwin, Rotherham; Mr. R. G. Britnell, Scarborough; Messrs. F. B. Benger and Co., Manchester; Messrs. Blondeau et Cie, Lond; Messrs Brady and Martin, Newcastle-on-Tyne; Buchanan, Tarporley.

C.—Dr. A. Craig, Glasg; Mr. C. J. Carr, Gt Yarmouth; Mr. R. Cuffe, Woodhall Spa; Signor E. Castoldi, Brescia; C. D., Lond.

D.—Dr. A. Duke, Broadwater; Mr. A. M. Dow, Brighton; Mr. J. S. Dockray, Deffryn Aled; Delta, Lond.

E.—Dr. W. Edmunds, Lond.; Messrs. Eckersley and Co., Manchester; E. R., Nottingham.

F.—Messrs. A. Faber and Co., Lond.; F. L., Lond.; F. D., Matlock Bridge.

G.—Mr. H. L. Gill, Halifax; Mr. J. H. Gordon, Portleven; G. R. P., Liverpool; G. O. M., Brighton; Genuine, Lond.

H.—Dr. Hutchinson, Fence Houses; Dr. A. Haig, Lond.; Mr. W. A. Hardiker, Priors Marston; Mr. S. Haigh, Bourne; Messrs. Hooper and Co., Lond.

I.—Iatros, Lond.

K.—Mr. T. Key, Fulford; Messrs. Kieson and Co., Lond.; Messrs. Keith and Co., Edin.

L.—Dr. J. Livy, Astley Bridge; Mr. C. M. Leakey, Caistor; Mr. J. Lawrence-Hamilton, Brighton; Mr. B. Lord, Manchester; Liverpool Nurses' Training School, Supt. of; L. R. C. P., London.

M.—Dr. W. Moody, Raphoe, Ireland; Mr. R. F. Morgan, Clevedon; Mr. J. H. Moore, Littleport; Messrs. Morris and Edwards, Nantlee Vale; Medicus, Lond.; Maltine, Southampton; M B., Lond.; M. R., Lond.; M.R.C.S., Bishopstone.

N.—Dr. E. Norton, Folkestone; Mr. W. Noble, Sissinghurst; Mrs. Newey, Lond.

O.—Mrs. A. B. C. Orchard, Bovey; O. K., Lond.

P.—Dr. J. W. Pare, Lond.

R.—Dr. A. G. Robb, Belfast; Dr. J. S. Revely, Bramhall; Dr. C. H. Ralfe, Lond.; Rector, Courteenhall.

S.—Dr. H. Sainsbury; Dr. W. C. Sullivan, Lond.; Mr. Simpson, South Walsham; Mrs. Sandeman, Edin.; Messrs. Segg and Co., Lond.; S. and T. Tyre Co., Lond.; St. Albans, Lond.; Suum Cuique, Lond.; Strophanthus, Lond.

T.—Dr. T. Telford-Smith, Lancaster; Dr. J. H. Thorp, Liverpool; Mr. H. E. Trestrail, Glasg.; Messrs. Thomson and Shephard, Lond.; Terrol Co., Lond.

V.—Mr. A. R. Verity, Garndiffaith; Villus, Lond.

W.—Dr. J. H. Waterhouse, Maltby Grange; Mr. H. N. Williams, N. Shields; Mr. J. Ward, Lond.; W. S. W., Lond.; W., Lond.

Z.—Z, Ryde.

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year	£1 12 6
Six Months	0 16 3
Three Months	0 8 2

POST FREE TO THE CONTINENT, COLONIES, UNITED STATES, INDIA, CHINA, AND ALL PLACES ABROAD.

One Year	£1 14 8
Six Months	0 17 4
Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to Mr. CHARLES GOOD, Manager, THE LANCET Office, 423, Strand, London.

ADVERTISING.

Books and Publications	... Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements	Ditto	0 4 6
	Every additional Line	0 0 6
First Page (under Contents) (Books only)	when space available	
	Five Lines and under	0 5 0
	Every additional Line	0 1 0
Quarter Page		1 10 0
Half a Page		2 15 0
An Entire Page		5 5 0

Terms for Position Pages and Serial Insertions on application.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to fictitious names or initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Terms for Serial Insertions may be obtained of the Manager, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière Asnières, Paris.